

**HARVARD
MEDICAL
ALUMNI
bulletin**



May/June 1970

The negative power of anxiety...

This man thinks he may
never work again.



The patient who has had a myocardial infarction is usually advised by his physician to avoid emotional excitement. All too often his family, acutely concerned, transmits its anxiety to him, urging him to "rest, rest."

How anxiety may interfere

In a study of 336 males who had suffered at least one myocardial infarction, Sigler¹ reports that manual workers showed the lowest percentage of patients returning to work, compared to clerical workers, business and professional men. The author notes that in many cases the mere apprehension that "return to work would shorten life prevents the patient from resuming activities." It is also well known that emotional disturbance is probably the most common cause of cardiac disability in postinfarction cases.¹

The anxiety factor in both *coronary* and *precoronary* patients has recently been discussed by Thomas,² who suggests: "Intensive investigation of the sources and kinds of anxiety, and how destructive forms of anxiety can be identified and relieved may be the next important step in the prevention of coronary heart disease."

Relief of anxiety with Librium® (chlordiazepoxide HCl) often proves a valuable adjunct to medical counsel, reassurance and the total management program; may help prevent the postcoronary patient from regressing into a state of invalidism.

As an adjunct in cardiovascular therapy, Librium® (chlordiazepoxide HCl): Quickly relieves anxiety of mild to severe degree in most cases. Helps expedite cooperation in therapeutic regimen. May be used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, antihypertensive agents

and diuretics. By relieving anxiety, helps encourage productive activities. Has a wide margin of safety and, in proper maintenance dosage, seldom impairs mental acuity or ability to function. Often effective in extended therapy, usually without diminution of effect or need for increase in dosage—in protracted use, periodic blood counts and liver function tests are advisable.

References: 1. Sigler, L. H.: *Geriatrics*, 22:(9) 97, 1967. 2. Thomas, C. B.: *Johns Hopkins Med. J.*, 122:69, 1968.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating

drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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in the
postcoronary patient
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*A case history from
a study by E. H. Townsend, Jr.,
involving 356 patients*

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time resulted in cough control for 10 hours, and antibiotics were withheld for 24 hours. Tetracycline was given on the following day, supplemented by 1/4 teaspoonful of the cough syrup twice a day for 3 days. The subsequent course was entirely uneventful."

*Townsend, E. H., Jr.: New England
J. Med. 258:63, 1958.*

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Children: Under 1 year 1/4 teaspoon q 12h
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LANGDON PARSONS '27
Director of Alumni Relations
DOROTHY A. MURPHY
Associate Director

THE HARVARD MEDICAL CURRICULUM

ALEXANDER LEAF, M.D.

CHANGES in the medical curriculum have become as fashionable as styling in women's clothing. The changes by contrast, however, are in response to real needs, not to idle fancy. But the question of whether curriculum change will affect medical education remains to be answered.

The pressures for change in our medical curricula come from within medicine and from society's expectations. From within medicine and the biological sciences has come a large expansion of information in the past two decades that has made specialization mandatory. Only through specialization in diagnosis and care can the advantages of the new knowledge be made ultimately available to the public. New and diverse roles for the Doctor of Medicine have been created with new knowledge providing the potential, and social need the demand for their existence. The demands arise from the rapid increase in the world's population, the increasing affluence of modern industrialized society with its ability to pay for better than minimal health standards, and the expectation that medicine can reduce suffering, conquer disease and assure to all a better life free of physical or mental illness. Proficiency in entirely new areas of health protection, e.g. radiation safety, population control, space medicine, etc., is expected, while traditional patterns of medical care are severely challenged.

It is little surprise that medical education has been caught up in the changes taking place about it. Public support of medical education

and the increased needs for more and better health services have terminated an era of independence and unconcern within the educational establishment for the product of its training. For the first time the medical schools are being asked to consider whether the training provided physicians today is appropriate to meet the needs and expectations of our society. Idealized goals expressed in vague language no longer suffice to attract support. Even advancement of science is no longer accepted as a self-evident justification. Until medicine provides the services society expects of it, support for its treasured teaching and research activities will become increasingly difficult to obtain.

In this reexamination of goals and priorities our educational programs are jeopardized by a nearly total lack of comprehension of how medicine should best be practiced. The traditional fee-for-service system, with the vested interests surrounding it, has served in the past as a deterrent to experimentation with new methods of delivering health care. Thus, just at a time when we need to know what blend of modern technology with traditional practices can most effectively and economically bring modern health care and preventive medicine to everyone, we find this information lacking. Even while we remold our system of educating physicians, we must discover in specific terms what we are educating for. This is a major obstacle to intelligent curriculum planning. Even though we have established experimental field operations to learn how medicine should

ideally be practiced in a community, this experience is still too preliminary to form the basis for redefining health manpower needs and the functions of our trainees. We must, therefore, create our new curriculum with broad general principles in mind and expect details to change continuously in response to an increasing appreciation of what our graduates need to know.

In 1966 the Harvard Medical School Faculty commenced consideration of curriculum change with the stated aims to:

1. Allow more flexibility to meet the various needs of individual students that arise from differences in background, interests and choices of future careers in medicine.
2. Cultivate habits of independent thinking and scholarship that will insure continuing assimilation of new knowledge after graduation.

The initial report further stated that to accomplish these aims it seems necessary to:

1. Reduce the amount of factual information and memorizing pressed upon the students, and to allow time for students to read, discuss and think in the atmosphere of a graduate school, rather than of a trade school.
2. Teach a "core curriculum" in a limited time by a coordinated interdepartmental activity.
3. Increase time in all years for elective courses designed to explore subjects in depth and taught primarily on a departmental basis.
4. Intermingle biological, behavioral and clinical sciences throughout the curriculum so that the student acquires a real sense of how the third draws its strength from the first two.
5. Maintain the motivation of most beginning students to help suffering humanity by introducing them to patients

early in their training. This should be done in exercises designed to increase students' awareness of the emotional and socio-economic aspects of illness as well as to reinforce the importance of pre-clinical sciences to pathophysiology of disease. An increasing responsibility for the care of patients, as rapidly as background and clinical skills permit, should also be provided.

The process whereby the Faculty accomplished sweeping changes in the curriculum in time to start the class of 1972 commencing in September 1968 on a new path is documented in the minutes of many, many committee and Faculty meetings, and may be left for future archivists interested in how a Faculty of 3,000 develops and implements change. The new curriculum consists of four basic parts: Cell Biology; Human Biology; Clinical Clerkships; Electives.

The Overall Plan

Figure 1 shows schematically the four portions of the curriculum within the context of a four-year period of medical education. The year is divided into two semesters of 17 weeks each, timed to coincide with the academic year at the University in order that our students may take advantage during their elective periods of courses offered at Harvard or at Massachusetts Institute of Technology. There is little that is sacred about the order of course work. Should a student wish to engage in a research activity following Cell Biology he could rejoin his class during Human Biology III the next fall and continue through Human Biology I and II with the subsequent class. With blocks of elective time in both semesters, much flexibility exists in pacing one's schedule through Cell Biology and Human Biology. The required clinical clerkships may be completed in one eight-month block, or may be interspersed with electives.

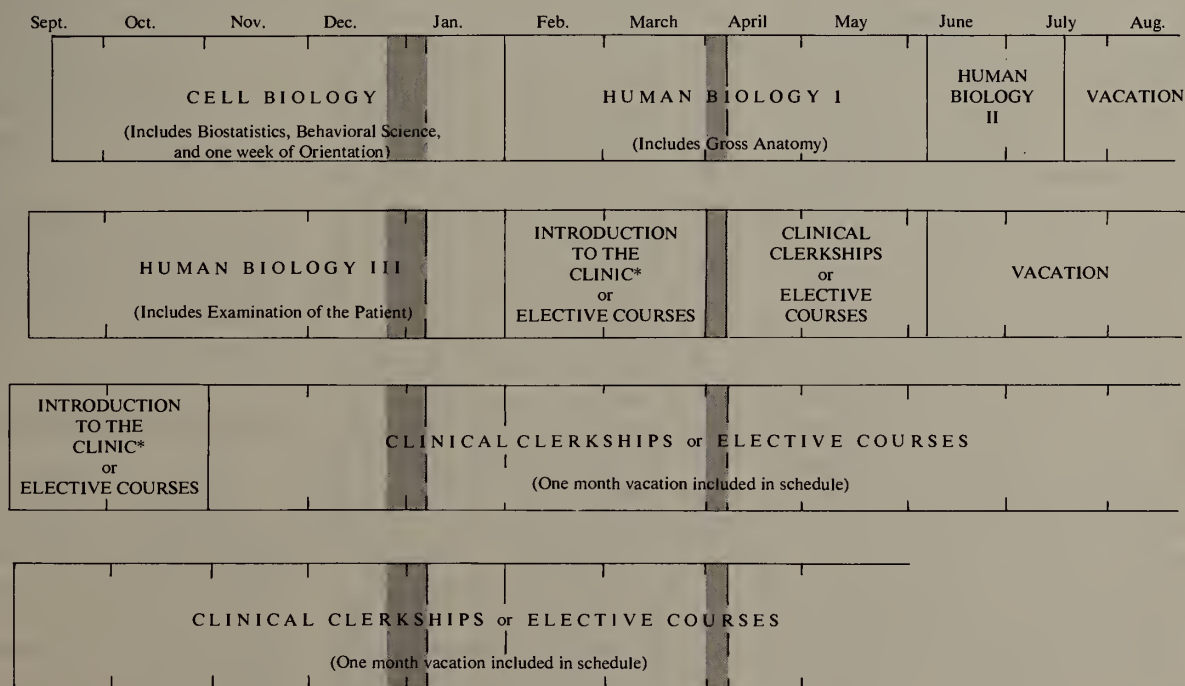
Cell Biology

This semester includes biochemistry, bacterial physiology, biostatistics, cell physiology, histology, embryology, general pathology, general pharmacologic principles, and behavioral science. Only those aspects of pathology, physiology and pharmacology which are general and not specific to individual organ systems appear here. Dr. Elkan Blout is coordinator for this teaching.

Not all subjects are taught concurrently and the pace is not hectic. (See Figures II and III). Teaching is done by individual departments with considerable coordination in the content of the material taught.

These are the subjects in which increasing numbers of students are receiving instruction in college. Advanced placement examinations are given in biochemistry and biostatistics. In the fall of 1969, 21 of the class of 139 were exempted from biochemistry on the basis of their performance on this examination.

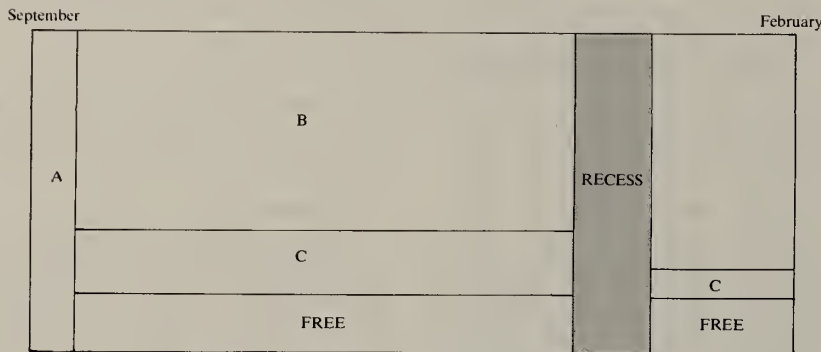
Figure 1
Harvard Medical School — Plan of Instruction



■ Recess

* May be taken either spring of second year or fall or spring of third year

Figure II
Harvard Medical School — Plan of Instruction
Semester I Cell Biology



A. Orientation: Introduction to the Harvard Medical School (one week)

B. Bacteriology and Virology (27 hours)
Behavioral Science (60 hours)
Biostatistics (12 hours)
Cellular Biochemistry (100 hours)
Pharmacology (14 hours)
Physiology (28 hours)

C. Correlation Clinics (17 hours)
Histology and Embryology (59 hours)

D. Immunology (10 hours)
Pathology (37 hours)

Christmas Recess: two weeks

Free Time: Average two to three afternoons per week or equivalent

These numbers will increase, and students who are exempted from such identifiable portions of Cell Biology may engage in electives while their classmates catch up with them. The traditional "cook-book" type of laboratory exercises has given way to a single experience, which may be in biochemistry or any of the other subjects, and which entails some quantitative problem in biology. Seventy-six students in the Class of 1973 were exempted from this laboratory on the basis of their college science courses. Correlation clinics occur each Saturday morning during which the students are shown patients whose health problems are pertinent to some aspect of the biological science teaching that is in progress. The planning of additional clinics is encouraged whenever they can serve to illustrate or reinforce a topic under discussion. To further maintain motivation, the students spend an afternoon each week work-

ing directly with an individual patient in exercises designed to make them aware of the emotional and socio-economic aspects of illness, rather than to involve them directly in the medical problems of the patient. A considerable diversity of projects has been designed. Participation in a family medicine program illustrating the family as the unit around which the health care system is designed, instruction in the psychological evaluation of patients with discussion of the clinical and social problems encountered, evaluation of specific health facilities in neighboring communities with discussion of their adequacy, are but a few such exercises. In addition to this action-oriented experience in the social sciences related to medicine, the students engage in one seminar weekly in any of several offerings. The listing of the titles of these 13 separate weekly seminar courses indicates the scope available.

1. Economic Criteria and Public Policy in Health and Medical Care. — Dr. R. Fein.
2. The Seven Ages of Man. — Dr. R. Galdston.
3. Family Medicine. — Dr. J. J. Alpert.
4. The Family in Health and Disease. — Dr. L. S. Robertson.
5. Personality Development and Function. — Drs. C. Nadelson and M. T. Notman.
6. The Role of the Physician in the Hospital Setting. — Dr. R. H. Sweet.
7. Psychobiology. — Drs. P. B. Dews, W. H. Morse, and R. T. Kelleher.
8. Aspects of Social Medicine and Forensic Psychiatry. — Dr. A. A. Stone.
9. Social Psychiatry. — Dr. M. Beiser.
10. Preventive Psychiatry and the Disadvantaged. — Dr. C. M. Pierce.
11. You, Medicine, and the Community. — D. C. Simmons, Jr.
12. Introduction to Social Medicine and Medical Care. — Drs. O. L. Peterson and H. W. Keairnes.
13. Applied Social Sciences. — Drs. C. E. Lewis and S. J. Miller.

Seminar groups number 3, 4, 5, 12, and 13 took responsibility for related field experiences during the half-day each week devoted to the seminar course.

HUMAN BIOLOGY

The year of Human Biology is an expansion of the semester of pathophysiology with which we have had 11 years of highly successful experience. This is integrated block teaching planned and executed by a committee of Faculty with expert knowledge of the structure and function, both normal and abnormal, of each organ system. (See Figures IV and

V.) Dr. David G. Freiman is the overall coordinator for this teaching. Human Biology I includes the following blocks: growth (embryology, human genetics, tumors and radiation); circulation; respiration; nephrology; and epidermal and supporting tissues. Human Biology II is a six-week block of the neural sciences including neuroanatomy, neurophysiology, neuropharmacology and neuropathology. Human Biology III completes the organ system teaching with hematology, gastroenterology, infectious diseases, endocrinology and reproduction. The infectious disease block did not exist in the old pathophysiology course; it contains the medical bacteriology, immunology and tropical diseases extracted from the bac-

teriology course in the old curriculum leaving a manageable amount of microbiology to be taught in the Cell Biology semester.

In our first experience with the teaching of Human Biology I (Spring Semester 1969), anatomy was taught as a longitudinal course running through the various blocks during the second semester. Instead of decongesting the intensity of teaching in the blocks, as hoped, it competed with Human Biology for the student's time and attention. In our next teaching of Human Biology I, anatomy has been provided with a four-week block of its own and the results will be watched with interest.

During Human Biology III, the course in the examination of the patient runs longitudinally through

the blocks. The students spend two half days each week at the hospitals learning interview technics, history taking and the physical examination.

This experience with direct patient contact has been successful and does lighten what would otherwise be a highly concentrated teaching of organ systems. The course in aseptic technic (dog surgery) now is given on seven afternoons during the infectious disease block.

Clinical Clerkships

In the usual course of studies the student will have completed the semester of Cell Biology, and the year of Human Biology, by the middle of his second year. (See Figure I.) At this point he may take the eight-week

Figure III
Harvard Medical School — Plan of Instruction

WEEK 6
A representative week in the Cell Biology Course — first semester

	Monday October 20	Tuesday October 21	Wednesday October 22	Thursday October 23	Friday October 24	Saturday October 25
9:00 AM	<u>Bacteriology</u> Introduction to microbial genetics	<u>Biochemistry</u> Conference: Chemistry of Nucleic Acids	<u>Bacteriology</u> Bacterial conjugation	<u>Biochemistry</u> Nucleic Acid Structure	8:30 AM Biostatistics	<u>Biochemistry</u> Biosynthesis of Nucleic Acids
10:00 AM	<u>Pharmacology</u> Dose-response curves I	Laboratory class	Biostatistics	FREE one half class	9:30 AM <u>Bacteriology</u> Virulent bacterial viruses	Clinic
11:00 AM	FREE				Behavioral and Social Sciences Seminars	
12:00 N						
1:30 PM	FREE	Biochemistry one half	FREE	Bacteriology Conference I Metabolism one half class	Behavioral and Social Sciences Field Work	FREE
2:30 PM		Bacteriology Conference I Metabolism one half class		Biochemistry one half		
3:30 PM						
5:00 PM						

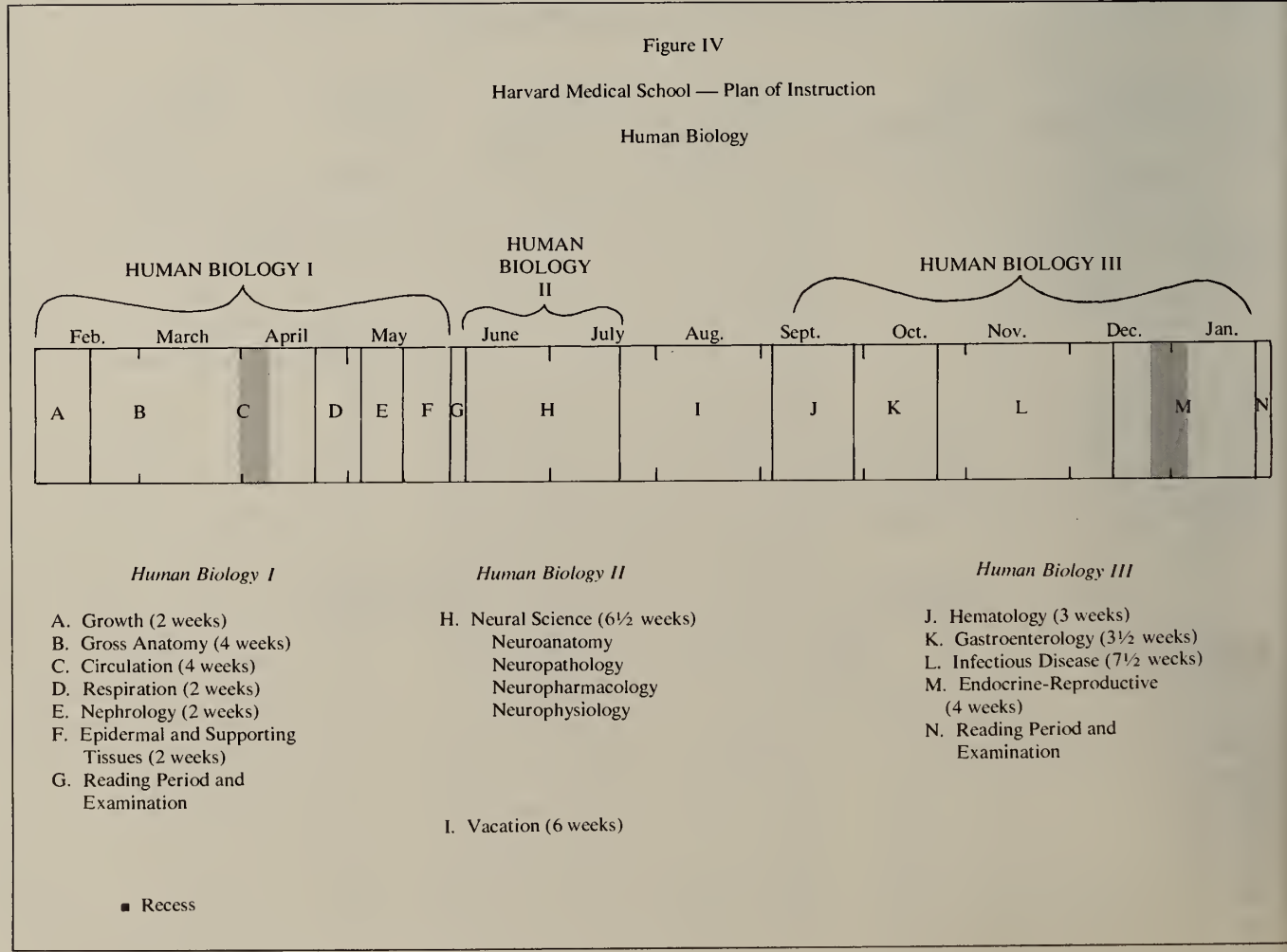
Introduction to the Clinic and proceed with his clinical clerkships or he may take electives in the preclinical sciences delaying the Introduction to the Clinic until the fall of his third year. The Curriculum Committee has strongly recommended that each student apply the equivalent of one semester of his elective time to a study of the sciences basic to medicine. This can be done at any time and it seems likely that most students will continue directly on to their clinical courses as this will increase the options available to them during the elective period.

The Introduction to the Clinic has been reduced by four weeks in the new curriculum. The eight weeks are spent in the hospitals, where the students are assigned in groups of two to four to medical and surgical instructors to spend an intensive, full-time period devoted to improv-

ing their skills in obtaining information about their patients. History taking, the physical examination and the appropriate use of laboratory examinations are reiterated so that the student will have sufficient proficiency and familiarity in working directly with patients. This will allow the student to join directly with the house staff in the care of patients during his subsequent clinical clerkships. This teaching of the Introduction to the Clinic, devoid as it is of any responsibility for patient care or follow-up, is somewhat anomalous and artificial; the student simply works up one patient after another presenting and discussing them with his preceptor. On the other hand, much of the value of our clinical clerkships has traditionally been that our students are prepared to join the house staff and visits as effective and responsible members of the team.

They join in the work, the rounds and the teaching on our wards without special tutorial treatment. Such involvement would be impossible without the intensive coaching that occurs during the Introduction to the Clinic. Furthermore, not all students will commence their clerkship experience with medicine, surgery, or pediatrics and, therefore, it seems advisable that they all start with the general skills taught them during the Introduction to the Clinic. For these reasons the Introduction to the Clinic will be offered twice each year, at the start of the fall and spring semesters; it is a prerequisite for all other clinical courses.

After much discussion in the Curriculum Committee and Faculty it was agreed that the minimal clinical requirements for the M.D. degree would be three months of medical clerkship, two months of surgical



clerkship, and three additional months, which the student may select from any of the recognized major clinical services: dermatology — ophthalmology — otolaryngology; neurology; obstetrics-gynecology; orthopedic surgery; pediatrics; psychiatry; radiology. It is expected that the large majority of students will elect considerably more clinical experience than this minimal requirement.

The Electives

With the required courses taking only 25 months of the four years, even subtracting a minimum vacation time of one month in each calendar year, there remain some 17 months for elective studies. This elective time, furthermore, may be interspersed throughout the four years in any arrangement that most effectively serves the needs of the individual student. It is clear that at a time when the amount of information that is potentially available to be taught has increased enormously, the sequestration of such a large portion of time for electives must be justifiable by the importance of the role of the electives in medical education. This requires a new definition of electives at Harvard where traditionally they served as a few months of frosting on the cake after extensive requirements of course work, identical for all, had been completed by the second half of the fourth year.

The role of the electives now is two-fold: to provide diversification of experience, and an opportunity for the student to sample the subject matter of several disciplines to assist him in his choice of a career, or to broaden his base for a chosen career; and second, to provide an opportunity for each student to have an "in depth" scholarly experience in some subject of his own choosing, whether it be in basic or clinical science, and whether it uses the technic of course work, research, or clerkship as its operative mode.

The last three decades have seen such a large increase of information

of potential value to the physician that it is patently impossible to include even a major portion within a curriculum of reasonable duration. The role of the required or "core" curriculum is to provide the student with the language of medicine; the electives provide the flexibility to meet the recognized differences in needs of individual students that arise from differences in background, interests and choice of future careers. The "core" curriculum, of necessity, must be superficial. Its function is to create a familiarity with concepts; the electives must fill in the essential details. To a Faculty imbued by tradition to teach rigorously, with essential details presented to back up each generalization, the superficiality of the core curriculum has been irksome. There has been endless elbowing for visibility by departments in the teaching of the core curriculum. If perspective can be maintained, however, and the "core" curriculum viewed as the teaching of the common language of medicine, then the zeal of a dedicated Faculty can be unleashed to provide elective courses of the highest quality. The devoted teacher will have the opportunity to teach an entire course in his own inimitable way to a group of 10, 20 or more students who have sought him out rather than to a captive audience of 150 students, many with thoughts and interests elsewhere. In the electives, departments and individual teachers, who may feel submerged in the fragmented teaching of the core curriculum, will once more have their day and, hopefully, great teachers will develop in this system.

If the elective curriculum is to become the bulwark of our medical education, how then is the core curriculum with its superficiality and fragmented teaching justified? For the present it seems necessary to provide a common body of knowledge to all who aspire to the M.D. degree. How to define this core is the difficulty. It clearly is presumptuous of anybody, even the Curriculum Committee, to attempt the definition. In actual practice, the limits

of time and open interdepartmental discussion provided the definition. In the future we may realize actual tracks throughout the four years of Medical School (or whatever time period may eventually be involved) that lead to the diversity of career goals. For the present, however, there remains enough cohesiveness to provide a sufficient overlay for a "core" curriculum for all M.D. aspirants. It should be appreciated that this core will change with time, and rigidity in its definition must be avoided. It is reasonable that much of this "core," e.g., Human Biology, should be taught as integrated, interdepartmental, interdisciplinary exercises. Such integrated teaching imposes a major responsibility on the Faculty to avoid excessive fragmentation; where the effort has been made, fragmentation has been avoided.

A subcommittee of the Curriculum Committee was established under the chairmanship of Dr. A. Clifford Barger to solicit elective offerings from all departments of the Medical School. Each offering was scrutinized by the subcommittee for its suitability for inclusion in the new catalogue of Electives. The adequacy of supervision of the students has been a major requirement for acceptance. Only courses in which the instructor holds an appointment at Harvard Medical School are listed but students may supplement this catalogue with acceptable opportunities at Harvard University and at Massachusetts Institute of Technology. It is expected that the catalogue of offerings will change continuously; a mechanism is being set up to afford a means by which new electives may be generated in response to needs sensed either by Faculty or students. To assist in planning his elective courses students have been assigned, by their choice as far as possible, in groups of four to six to a faculty advisor. This requires some 30 faculty members for each of three classes. In order to keep the planning and control from becoming too diffuse, all the study programs are finally reviewed by a small group of Faculty.

Evaluation AND Grading

It is a major disappointment to all curriculum planners, but manna to the opposition, that there is no adequate means of evaluating the consequences of curriculum reform. One almost has to be satisfied if the changes induce enthusiasm among the teachers and interest among the students. This lack of objective evaluation of the products of our medical schools, however, is not unique to the consequences of innovation; we can't agree on criteria that will distinguish "good" from "poor" medical practice generally.

It seems necessary, however, to make some evaluation of the student's performance as he progresses

through any medical curriculum. There are three purposes for such evaluation: to protect society from incompetence; to recognize the honor student; and to provide a basis for internship selection. With the new curriculum, and with the thought that these three purposes of the grading system were not equally justifiable, the Faculty, in January 1969, approved a proposal that "... only a 'satisfactory' or 'unsatisfactory' grade for each student's performance during the required course work in Cell Biology, Human Biology I, II and III be recorded in the Dean's Office." The proposal was accompanied by the following elaboration:

A major goal of our new curriculum is to help develop hab-

its of continuing education based on curiosity, interest and self motivation in our students. It is thought that good teaching by an enthusiastic and perceptive faculty will stimulate the motivation to learning which already is at a high level in students entering Harvard Medical School. On the other hand, to replace such desirable motivation by superimposing a system of grades, 'A' through 'E', is to foster a set of false values toward which the student must strive. Competition for grades rather than development of independent scholarship becomes the driving force and the educational goals we seek are sub-

Figure V

Harvard Medical School — Plan of Instruction

WEEK 8

SECTION: Infectious Disease

A representative week in the Human Biology Course

	Monday October 27	Tuesday October 28	Wednesday October 29	Thursday October 30	Friday October 31	Saturday November 1
8:00 AM	Tuberculosis and Atypical Mycobacteria	Bronchitis, bronchiectasis, lung abscess	Non-bacterial pneumonia; Influenza	Immunology Clinic Tumor-transplantation immunity and immunosuppression	Antibiotics - Clinical pharmacology Gram positive bacterial agents	FREE
9:00 AM	Examination of the Patient	Pathology of bronchiectasis and lung abscess	Examination of the Patient	Immunology Laboratory Conference	Examination of the Patient	
10:00AM		Respiratory Infection Laboratory				
11:00 AM						
12:00 N						
1:30 PM	Immunology Clinic Cellular hypersensitivity and immunity	FREE	Epidemiology Conference 1	FREE	Aseptic Technique	FREE
2:30 PM						
3:30 PM	Immunology Laboratory 3		Mycobacteria Laboratory			
4:30 PM						

verted. Students cram for examinations, devote their time to rote memorization of lecture notes for fear their class standing may slip thus jeopardizing their future internship options. Little of such 'learning' sticks with the student but time to read, discuss and think is lost in pursuit of false values.

In defining a 'core' curriculum, selection of the most pertinent information in each discipline was essential in order to reduce the time devoted to this 'core' teaching. If the faculty were to compress the content of the previous longer courses into this shortened time the purpose of the 'core' teaching in the new curriculum would be defeated and the students would be under even greater pressures than under the old curriculum.

Since this course includes the 'core' material which every student must know it seems appropriate to indicate on his record simply that he does or does not know it adequately to proceed with the further stages of his training. This it is felt will provide a safety valve to protect the 'core' teaching from too zealous instructors.

Student evaluation seems essential for internship selection. It is thought that this can be done quite satisfactorily on the basis of the evaluation of the student's performance in his clinical clerkship and areas of concentrated studies.

This proposal is not intended to interfere with the use of examinations which have two essential functions in the educational process:

(a) they allow the faculty to assess whether they are getting across to the students the essentials of the course; (b) they allow the student to assess whether he is learning what the faculty deems important.

For these reasons it is recommended that examinations in courses be continued and that students be provided with some feedback as soon as possible after an examination. It is suggested that immediately upon termination of an examination, the instructor might review, with the entire class, the correct answers. Alternatively, corrected examination papers should be returned to the students as promptly as possible. The students will continue to take the National Board Examinations.

The early identification of the student whose performance is inadequate can be made as well on a Satisfactory-Unsatisfactory grading system as by our present methods. It is recommended that each 'Unsatisfactory' be accompanied by an evaluation of the student's difficulty and a recommendation to the Promotion Boards for remedial action to help correct the student's deficiency. With the availability of elective periods the Promotion Boards can adopt a firmer attitude in insisting on further instruction in the subject matter in which the student's performance has been judged unsatisfactory. It is appreciated that such a grading system will require changes in the attitudes of the faculty toward the evaluation of the student.

It is thought that a Satisfactory-Unsatisfactory grading system for the 'core' curriculum will not hide the outstanding, brilliant student even though it might possibly delay slightly his general recognition. Further thought may be necessary to reassess the conferring of 'Honors in General Subjects' to the graduating class but it is not felt that this poses an insurmountable obstacle which contravenes the advantages of this proposal.

OF TEACHERS AND TEACHING

In the original report of the Subcommittee on Curriculum Planning it is stated, "It is fully appreciated that changes in the curriculum can at best only facilitate the learning experience. The essence of education is to bring together the intelligent, motivated student with the sources of knowledge. The role of the teacher is to reduce to a minimum the activation barrier separating the two. There is no substitute for knowledge and enthusiasm for his subject in a teacher, but sometimes these ingredients are insufficient. We feel that inadequate attention has been devoted in teaching the teachers to teach. We hope that some concrete efforts to experiment with teaching clinics, perhaps seeking the advice and assistance of experts in education, will be implemented along with the new curriculum with full recognition that the latter can be no better than its teachers." When the storm and controversy over the reassignment of hours has settled, we remain with the major challenge of curriculum reform still ahead of us so long as better teaching remains only a hope.

The author wishes to thank Dean Robert H. Ebert for his support in establishing this curriculum and to express his great appreciation to the many Faculty colleagues whose views have been synthesized into the new curriculum and whose enthusiastic teaching is now making it function. Miss Dorothy Rackemann, Curriculum Office, and Miss Noreen Koller, Registrar, merit special thanks for their untiring efforts on behalf of the new curriculum.

Dr. Leaf is chairman of the Curriculum Committee. He is also Jackson Professor of Clinical Medicine, head of the Department of Medicine at Massachusetts General Hospital, and Chief of Medical Services, MGH.

ON October 7, 1783, the three recently appointed professors of the medical department of Harvard College were inducted into office in the Cambridge meeting house before the highest civil authorities of the Commonwealth: John Hancock, the governor; the clergy; college professors; and the general public. The inductees were Dr. John Warren, Professor of Anatomy and Surgery, Dr. Benjamin Waterhouse, Professor of the Theory and Practice of Physic, and Dr. Aaron Dexter, Professor of Chemistry. Drs. Warren and Waterhouse were installed together — Professor Dexter was not present. Both Warren and Waterhouse delivered Latin orations. Waterhouse's was not published until 1829 and when it appeared, some commented that it was not in "New England Latin." Waterhouse commented, "The day was brilliant, and the night more so for the college buildings were illuminated, together with several others."

Why should this antiquarian relic of 18th century prose in ornate Latin even be translated and read 187 years later? Certainly, the answers to the many problems confronting medicine and the social turmoil will not be found or even suggested here. History does not contain judgment, it carries no specific instruction, and it is not a testament. It does, however, offer the point of departure from which we may set out on the adventure of judgment. Those interested in history seek in it some illumination of the present and some foresight of the future.

Waterhouse's inaugural oration does not hold the plans for the future of medicine as did *A Discourse upon the Institution of Medical Schools in America*, read by John Morgan, May 30, 31, 1765, at the founding of the first medical school in the United States in Philadelphia. Yet it is strangely relevant to some issues today, such as the need for a scientific study of diseases of the mind and the effects of war on medicine.

In June, when the tents are pitched, the examinations over, and the rhetoric begins, perhaps again,

ORATIO INAUGURALIS

by GEORGE E. GIFFORD, JR., M.A., M.D.

"The day will be brilliant" and these words of Waterhouse will serve as both a solace and a touchstone.

AT this special dignified occasion, as a friend of teaching in this Harvard School of Medicine, now with my other comrades on this same faculty, I am settled in the solemn ceremony, and before we have made a good beginning of our duty, my role is to speak greetings according to the custom and to pay indebted thanks.

Therefore, firstly to you under whose direction not only the Academy (college), but our whole republic of Massachusetts prospers! A most esteemed man, a commander, full of important duties, eminent in excellence most illustrious! You are always to be honored by me, our countrymen, and our descendants, through all of the federated provinces, because of the greatest favors placed in this University, while the war was raging and freedom was endangered!

You, too, exceptional guardians, generous patrons of this School of Cambridge, for whom the reasor of our highest respect must be attested by me, because, while it was your responsibility, it seemed to us to enrich the College with our learning, I greet you.

And you, most adorned, most learned protector! Most burdened with duty, O noble brilliance of knowledge! Always to be honored as the light of our College!

You too, most renowned professors, and most dear to the College!

And you, most holy translators of the Divine Word! Most of all to be respected!

And you, most excellent circle of devoted youth! The hope of our country! Our concern and love, greetings!

Finally to all of you, seated in rows and lines, O most human audience, I wish you well.

As soon as the citizens of the Republic of Holland, with the highest excellence and with extreme toil, made a claim upon their own very great power for themselves, they took care right away to equip medical schools; indeed they decided most correctly, scarcely could Holland (with any diligence) bring to its people anything so advantageous or of greater fame than well-established medical arts.

By no means, is it difficult out of concern to understand, when war is interrupted, how a people for these reasons may be driven into war from that first place into the place in which you live. Hence that most prudent state of Holland in our generation, with their affairs completed, thought that medical schools should be established, among other things. Then, indeed, with all their energies to direct a course into literary matters; and when labor was given that Knowledge, excellence, but especially the true reverence of God, might prosper through the whole state, it struggled to bring a great deal of information for the sake of these things; that these longed for benefits, and this hope might come to the aid of the laboring Republic.

If these things and similar things of Holland should be lauded, then in reality we Americans must have attained a greater praise: destitution, the drawn sword, and death itself, the things associated with war, pressing hard into our severe affairs, until now prowled about in this war too; with the enemy without, and the traitor within our wrestling defenses; with alliance relaxed and scarcely unbound; with hope only remaining! And, I say, with so many evils pressing hard upon us, with so many



Man in a Green Coat by Gilbert Stuart

Although the subject of this portrait has never been convincingly identified, Charles M. Mount, in his biography of Stuart, conjectures that it is the artist's close friend, Benjamin Waterhouse. The Metropolitan Museum of Art Bequest of Mary Stillman Harkness, 1950.

again! The lonely place will become crowded! Not for us — not for us, O esteemed listeners! But to him who shakes the quarters of the summit of Heaven with thunder, must praise be given for this peace, this kind of leisure, and so many benefits, and most precious freedom, for eternity, may it be so! The praise of strength must be given, I say, to Him alone!

It is for our learning to preserve the whole man, to make the weak strong, to restore the dying, if possible, and to lengthen life. As great as is the work, so many are the instruments.

Anatomy, chemistry, the knowledge of herbs, and the investigation of remedies, through every course of searching, tend towards the medical practice, concerning which we act. When therefore it is of such power and covers so great a field, I beg you in the name of common humanity to lend me a willing ear while I discourse briefly on the art of medicine.

That medicine was established in most ancient times by trial alone, reason both teaches and will stand over anything of the art of inquiry; presently the truth concerning the theoretical will be considered, and concerning the reason of remedies, as they say, through conferences and debates. Besides, it cannot be denied but that the first part, the empirical statements, are undoubtedly most certain; for in the same matters, there is the same trial. From this source come the writings of Hippocrates, the books of Galenus and Celsius and related things of other ancient physicians, especially those things embracing practical experience. It is very like the truth that has been conveyed to an enduring posterity.

Nevertheless the diligence of younger men weaves many things around the fabric of the body; until now a great deal lies hidden, and will lie hidden for a long time. Nonetheless, he who wanted to discuss with us the ancients in this art, when our anatomy, chemistry, surgery, botany, and physics are weighted carefully and when our new medicines are weighed, and with many of

shadows, and with gloom gathered around us everywhere, either to turn our attention to matters of this kind or to offer the opportunity of fostering honorable sciences (it is more than could be hoped for) surpasses easily all models. But in the midst of turmoil, with no peace, and no repose, the academies, the societies of learned men, have been established among us! To this end amidst awful disasters some hope of restoring sciences shone on, and the School of Medicine raised its head under your direction.

There is little doubt that these deeds of this age will go handed down to our memory for a long time. Writers cannot but marvel at those men who, just as of old in the time of Nehemia, the Hebrew, with the one hand performed their religious duties and with the other grasped the sword. Thus moved neither by the insults nor the weapons of their enemies, they applied themselves

to the task of reviving letters as well as of restoring the Republic.

The Medical School is indeed a very powerful defense against the ravages of all nations; when discord was shaking the foundations of our world, although you did not establish it (the Medical School), you supported it in thought. For who is present, who of these young men especially those in the prime of their lives, to whom our misfortunes do not come into memory? Who was not a participant of these same things? But now no violent charge! The matter is safe! The whole world is enjoying peace! Then, all nations, lift up your applause! Shouting out in rejoicing voice to God; surely it calms wars even to the ends of our earth! Yet the triumphal arch is shattered! The spear is mutilated! That Omnipotent God smashes the tyrannical sceptre! Peace rules! The earth rejoices! Immediately desert places and wilderness grow green

the ancients cast down, either because of hideousness, or in using tortments, we will voluntarily admit that they yield I know not how much.

There is nothing more useful, nothing more necessary to the human body, not so healthy as sick, correctly recognized and clearly set forth, than anatomy. This alone searches out diseases; when the abodes of disease are disclosed, although they may be hidden, it exposes the causes of diseases often into the light; hence the great usefulness of anatomy in the study of matters of the body and of suffering.

Who, I ask, best listeners! would ever have thought about the ruptures of the heart, unless it had been discovered in anatomical facts? who would have discovered the milky vessels, the sensitivity of the heart and other muscles, and the peristaltic movement of the intestines, if the application of anatomical facts had been absent? Hence it always remains, that the principle guidepost of medicine is anatomy.

Botany, too little investigated by the ancients, today is refined, so that there is no plant which cannot be easily recognized from certain characteristic marks, put there by the Creator.

Chemistry has not brought less utility to medicine. For, with its aid, hidden viruses in the body which were unknown before, have been disclosed; indeed most rigorous drugs, unknown to the ancients have fallen into the use of men; the whole pharmaceutical field has increased markedly. Therefore the doctor cannot be without a knowledge of chemistry, if he wants to avoid the most serious errors in administering remedies. They are avoided by this trouble! Since a mistake may be manifold, how frequent are false calculations! But this is not the place for telling them.

Nor assuredly could the motions of living creatures be exposed without the exact knowledge of physics. For who could understand how respiration occurs, if the nature of the air were unknown? How could sight be explained, if light were not un-

derstood or if the laws of its radiating were not examined? How could hearing be explained, if it were not supported first by pneumatics?

Indeed, there are single bodies of animals like machines which they call hydraulic, in which with great speed, different humors move in circles, with perpetual movement, a scarcely believable mass. On that account whatever has to do with mechanics and hydrostatics let it be joined in some way to the science of medicine. Where should we search for the precepts of these sciences with greater result than in this very Academy? In fact, I would like to pursue these to a greater extent; but very little time forbids. At another time, on this very lofty and most esteemed subject, I will willingly digress.

As Cicero said, "Men approach more closely to God in no way than in the giving of health to men." So the father of Roman eloquence spoke with Justice. What is more human, what is more worthy for a Christian man, than to bring aid to the feeble and to those afflicted and tormented by disease?

It is to be grieved indeed that that part of medicine which deals with the controlling of the mind, as far as it pertains to doctors, who are taken by the healing of the mind, up to now has been neglected and deserted so that it is almost wholly lost! Wherefore rise up, scholars! And when our conceptions and tests are collected for the common good, and if anything else is very useful, foster and adorn this medical philosophy! The worthiness of the argument bids, the growth of the art persuades, and finally love of the human race keeps it going, so that we may undertake that work!

And you, first among the first, most lofty perfect! You, O wise guardian, devoted to study! You, generous keepers of this Academy! You holy translators of the Divine Word! May all of you consider (nor do I doubt that you will) nothing more important, nothing nearer and dearer to your hearts and your honor than that this college of ours, from

which all wise men judge that extraordinary usefulness is brought to the whole American nation, and indeed to the state in which it is situated are brought honor, riches, and great good fortune, that this college, I say, may receive notable increase from day to day. To you it is granted, O fathers of your country, my supporters and friends, it is in your power to provide for the sciences. It is a source of glory for you that you have established this study, most necessary of all, indeed hitherto neglected amongst you, namely the study of medicine.

Academy of Cambridge! Now that I have been adopted by you, let me be permitted to address you as mother! Come! Proceed! O image of the rising sun, diffuse your light through the limits of our Republic! Never will it be advised by me but that through the benefit of these and future generations, and through the favor of Heaven, you have escaped so many more things; through your embrace you have lighted up all our lands! It is not the place for doubting your future fortune which you have tied to the Republic with a most strong bond.

O may almighty God in his infinite goodness, I pray, at this time when never before has the nation been beset by more peril, make our beloved country, the college, and our liberty, that unparalleled gift of Heaven and the sole support of the Republic, survive undefiled and inviolate and flourish forever.

The author wishes to express his thanks to Roger Scudder for his help with this translation.

There is a copy of Waterhouse's inaugural address, which the author presented to President Josiah Quincy in 1829, in the Rare Book Room, Countway Library. The address, which had been literally translated by Brooks Otis (A.B. 1929), and set freely into English by Reginald H. Fitz '09, was read at the 150th Anniversary Celebration of the Harvard Medical School, October 7, 1933, by Henry Asbury Christian, Hersey Professor of the Theory and Practice of Physics.

Cut 'Em Up MAGRATH

by Edna Hills HUMPHREY

THE time was winter, 1901; the scene, an unheated attic over a blacksmith's shop on Gallup's Island. Far out in Boston Harbor, two doctors from Harvard Medical School were performing autopsies on a number of bodies of those who had succumbed to an epidemic of smallpox. For 26 hours they alternated the work, one operating on the cadavers while the other took notes. They used a three-burner oil lamp, many small bottles of fixatives to prepare the specimens for the microscope, and a pan of water for thawing out their hands. The isolation of the island and the building made the setting perfect for their grueling and gruesome task.

One of the men was Dr. George Burgess Magrath, then instructor in pathology at Harvard Medical School. This study of smallpox victims and a series of experiments led to the famous announcement in 1903 in the *Journal of Experimental Medicine* that Dr. Councilman, under whom Dr. Magrath was teaching, had discovered the organism of smallpox, called *Cytoryetes Variola*.

During his lifetime Dr. Magrath was to investigate more than 20,000 deaths. Autopsies and routine examination of bodies after death occupied him for the greater part of his life. Routine is hardly the word. Nothing was routine in his thorough, scientific investigation. He was well-prepared for his work; he had received three degrees from Harvard and early in his career had assisted in pathology at two hospitals. He taught in various capacities at Harvard, becoming instructor in legal medicine in 1907. In the same year Curtis Guild, Governor of Massachusetts, appointed him medical examiner for the northern district of Suffolk County, including Boston, an office he held until he retired voluntarily in 1937, a year before his death. His tall figure with its shock of blond and later gray hair, his flowing Ascot tie, and his pipe with the curved stem became a familiar sight to newspaper writers and readers.

The medical examiner was now taking the place of the old-time coroner. At one time, tradition tells us, 47 coroners were operating simultaneously in Suffolk County. It was not uncommon for a group of coroners to gather across the street from the person about to die from a cause known to be worth a coroner's investigation. Fees were involved, and at the moment of death the coroners would race to the bedside. It was said that at times a single body would appear in different parts of the county and thus result in more than one inquest and, of course, more than one fee.

The office of medical examiner, held by a physician, was on a higher plane than that of coroner, and Dr. Magrath improved the quality of the work and brought dignity to the office.

One of his most spectacular series of autopsies took place on Election Day in Boston, November 8, 1916, when an accident resulted in the death of at least 45 persons. A trolley car had crashed through the gates at the Summer Street extension and drawbridge and plunged headlong into the Fort Point Channel, 30 feet below. Mayor Curley was entering City Hall to study election returns and went immediately to the scene. Only a dozen people were rescued, those standing in the front or rear vestibules or clinging to the steps of the old-time trolley car. Divers worked until early morning removing the bodies, which were taken to the North Grove Street and City Hospital morgues where Dr. Magrath viewed them. Years later he said that the Election Day trolley car accident was his most horrible experience. It was at the time the most impressive casualty in the history of

Suffolk County. Dr. Magrath was spared the later appalling accident of the Cocoanut Grove fire.

While still a young man he became known for the thoroughness and precision of his technics. When he performed post-mortems, a secretary took notes and a number of assistants helped him carry on the vast amount of work. He pursued his investigations with such thoroughness that he succeeded in finding the cause of death where others had failed. He reported on so many autopsies that he acquired the title of "Cut 'Em Up Magrath."

Cutting up and examining bodies was not the sole interest in his life. He was never occupied with a family, because he remained a bachelor, but his free time was taken up with many and varied activities. For years he could be seen almost daily, except when the water was frozen, rowing on the Charles River. He held membership in the Union Boat Club Eight that carried top honors in the American Henley Regatta at Philadelphia. For some time he was the chairman of tryouts for the eight-oared crews sent to the American Olympic Games.

Another enthusiasm was music. Dr. Magrath worked his way through college in part by playing a church organ. Later he found recreation in singing and joined the Harvard Alumni Chorus. He was a member of the Cecilia Society and the Handel and Hayden Society and became a director of both. He had a library of rare and valuable volumes, and an unparalleled collection of medico-legal case records.

Then there was his car, an inexpensive 1907 model Ford, equipped with police bells, which he drove for years. According to the *Boston Globe*

he spent enough in repairs to buy several new cars. In spite of his many interests, he found time to drill with the Massachusetts State Guard, attaining the rank of major.

All outside activities took second place in relation to his work as medical examiner. He could continue from case to case, apparently without tiring, out at all hours, day and night.

One investigation that especially intrigued the public was the Small murder case in 1920 in Ossipee, New Hampshire. In this case the state of New Hampshire had sent for Dr. Magrath when Mrs. Small's body was found in the basement after fire had destroyed the house. The husband, who had gone to Boston a few hours before the fire was discovered, was the suspect. The body lay near a cast iron stove, part of which was melted. Both the stove and the body had dropped through the floor above. Dr. Magrath knew that no ordinary fire could thus damage a stove. He turned to the theory that Mr. Small had used thermite to create a blaze strong enough to destroy the house and much of Mrs. Small's body. (Thermite produces extremely high temperatures, is used in welding, and also in incendiary bombs.)

Dr. Magrath's tall, powerfully built figure, and the deep voice in which he delivered his vigorous testimony made him a colorful witness in court. He had the Small stove brought into the courtroom, and with his dramatic and convincing testimony he brought about the conviction of murder and the hanging of Mr. Small.

Dr. Magrath is also remembered as a witness in the Jessie Costello case in Salem, Massachusetts, and in the world famous and controversial Sacco-Vanzetti case. He testified according to a quotation that he kept in his notebook: "If the law has made you a witness, remain a man of science; you have no victim to avenge, no guilty or innocent person to ruin or save. You must bear testimony within the limits of science.

A TRUE scientist, he took nothing for granted. At the Arcadia Hotel fire in the south end of Boston, more than a score of men lost their lives. The last remaining victim was found in a chair, apparently having died from smoke inhalation. It would have been easy to give that as a cause. But Dr. Magrath in his painstaking investigation examined a gold pencil case attached to the man's watch chain. He found that it had held poison, and he named suicide as the cause of death. He was often called upon to pronounce a verdict of death from suicide. He never became callous about his work, but felt that in the case of suicide, most persons could have been saved by a friendly conversation at the moment of crisis.

There was no question of murder or suicide when he was called to South Natick in Middlesex County in late September 1906 to search for the cause of a typhoid fever epidemic. But the outcome was no less dramatic. Here we see Dr. Magrath in action.

The disease spread to Natick, Needham and Wellesley, but was centered in South Natick where the Board of Health of Massachusetts called the epidemic "explosive in character and mysterious in origin." The village physician, Dr. Hills, had been a victim of typhoid before practicing medicine and had a special sympathy for those now suffering. He was hoping desperately that the young and fair-haired Dr. Magrath, then assistant medical examiner, could find the cause of the epidemic. Other representatives of the Board of Health of Massachusetts, as well as that of Natick, had made investigations with no conclusions reached.

It took only a few minutes in Dr. Hills' office in South Natick square for him to realize that in Dr. Magrath he was dealing with a superior individual. He was soon to admire his scientific methods. One factor that had mystified Dr. Hills was that the typhoid cases were almost totally confined to a certain small section of the village. Dr. Magrath asked

about the water supply in that location and was assured that in almost every case the family had town water.

"Who is the milkman?" "It's Mr. B- - . But it's a puzzling situation. He supplies us and other families before he reaches the homes of the typhoid patients. Some of them live not far from us. Yet the seven in our household have escaped."

"Well, let's see Mr. B- - 's farm."

The two doctors examined what in the reports was called "Dairy B," found no illness on the premises and no history of typhoid.

"Do you buy from other dairies?" Dr. Magrath wanted to know.

"Yes, I buy some from Mr. A- - ."

"Do you go and get it or does he bring it here?"

"Well, I deliver as far as the square and then I meet him and I put his cans in my wagon." (In those days the milkman poured unpasteurized milk from the large cans into smaller containers for the customers.)

Dr. Magrath jumped up. "Let's go to Mr. A- - 's."

They found the milk room at the dairy clean and well-appointed, and using water from the public supply. Dr. Magrath took blood samples from each of the four men who were milkers as well as from the foreman. (On his return to Boston he had a blood test applied for typhoid fever and sent a report of negative for all.) He asked if any of the men had been sick. The answer was no.

"Has anyone left here because of illness?"

The foreman thought a moment and then said yes, there had been a girl who had waited on table in the employees' dining room. She became ill on September 16 but had worked until the 20th when she went home. She had not returned. Her duties had not included any handling of the milk or milk utensils. But through further questions, Dr. Magrath learned that she had used a common privy that had not been disinfected.

"Where does the girl live? Can you reach her by telephone?"



"Yes, I think I can. She lives in Roxbury."

The foreman got an answer to his call and passed the receiver to the examiner.

Dr. Hills listened to Dr. Magrath's side of the conversation as he identified himself to the mother of the waitress.

"Is your daughter there?" A pause.

"Where is she?" Another pause.

"Boston City Hospital? What's the matter with her?" Dr. Magrath nodded as he heard the answer and repeated it. "Typhoid fever."

The source of the epidemic was no longer a mystery. Dr. Hills wondered why no other investigator had been able to discover the cause. The waitress had been able to transmit the disease as early as two weeks

before she herself was stricken. Here was a carrier who could be compared to "Typhoid Mary" whose history was familiar to both doctors. As cook in various families and in a hospital she was known to be unwittingly responsible for 57 cases of typhoid. One hundred and eighty cases could be attributed to this carrier at the dairy.

Thanks to Dr. Magrath the number of new cases declined. Dr. Hills attended 32 typhoid fever victims, of whom only two died. During the next half century new methods of handling milk, including pasteurization, completely wiped out typhoid epidemics in Massachusetts and in much of the United States. We take the victory for granted, but it was such men as Dr. Magrath who added immeasurably to this scien-

tific advancement.

News of Dr. Magrath's technical achievements spread to other states. In 1914 two or three physicians from New York came to Boston to learn the methods in force in Suffolk County. Following their visit, the office of coroner was abolished in New York City and replaced by that of medical examiner with deputies. Dr. Magrath had testified before a legislative committee and thereby helped pass the bill which became effective in New York City in 1918. He was offered the post of medical examiner in that city but chose to remain in Massachusetts. The *Boston Globe* called him "one of the world's most famous pathologists."

Dr. Magrath won the respect of all. Fifteen years before his death he had been in danger of losing his right hand, infected during an autopsy. He preferred to risk death rather than have the amputation. All of New England expressed anxiety over his condition. His recovery after seven weeks was ascribed to his remarkable health, due to the almost daily rowing on the Charles. He had been in failing health for some time before his death in 1938, but in the fall had attended football games at Harvard Stadium.

Dr. Magrath loved his work. It was his job to find out how a person died and how he happened to die. He was quoted as saying, "Death occurs in queer places and under strange circumstances. — Sometimes we just miss keeping alive."

In his memory the George Burgess Magrath Library of Legal Medicine was established at Harvard. It was at that time the most extensive in the world and no doubt contained his own impressive collection. This and his work have memorialized him. The term "Cut 'Em Up Magrath" could now give way to "Dr. Magrath, Distinguished Medical Examiner."

Edwin Markham's poetic tribute to Lincoln might apply to Dr. Magrath, comparing him to a lordly cedar which goes down with a great shout, leaving "a lonesome place against the sky."

WE would like to review briefly the history of the early effort to eliminate bovine tuberculosis in Massachusetts, for the story of this struggle between commercial interests and the public health may have a lesson for our troubled times. An expensive program for eliminating tuberculin-positive cattle was initiated by this Commonwealth in 1894 — a scant three years after Koch had described the use of tuberculin as a diagnostic reagent. Unfortunately, this program was rapidly killed, though a subsequent similar Federal program, established in 1917, proved phenomenally successful in eradicating this source of human infection in our country. The contrast suggests that the necessary reforms could not stick until after a long period of educating the public and the veterinary profession, and overcoming the resistance of those controlling the meat and dairy industries. To put the lesson in more general terms: where large economic interests are involved the conversion of new scientific knowledge into effective legislation seems to require extensive prior public education. Since the lag often means heartbreak and misery, and since we are now crowded with problems arising from scientific and technological advances, we clearly must try to accelerate the process of educating the public, and to create better social instruments for protecting its interest: but we also cannot realistically insist on instant success.

The briefest look at the history of the control of bovine tuberculosis will emphasize the foresight of the men responsible for the early Massachusetts program. Restrictions on the use of visibly diseased flesh, or of flesh from wasted animals, go back to Biblical times; and strict regulations were widely introduced in Europe in the 16th century, when a massive epidemic of syphilis led to widespread concern with the transmission of all communicable diseases. Yet restrictions appear to have become increasingly lax by the 19th century. And though the discovery of the tubercle bacillus by Koch in 1882 led to rapid advances

THE SAD FATE of PREMATURE LEGISLATION

ERADICATING BOVINE TUBERCULOSIS IN MASSACHUSETTS

in understanding the etiology and transmission of tuberculosis, practices in the food industry were slow to change. In spite of the Federal Meat Inspection Laws enacted in 1890 and 1891, the Tuberculosis Commission of the Veterinary Congress of America at the 1893 Chicago Exposition reported: "We have no regular inspection of herds, nor a complete inspection of meat. Even if we had an organized inspection, its result would not teach us how much tuberculosis is present among our cattle. . . . It is only by an extensive examination with tuberculin, or a thorough and well organized system of meat inspection, that reliable statistics can be obtained."

The vision of the eradication of bovine tuberculosis seems to have been the creation primarily of D.E. Salmon and his junior associate, Theobald Smith, at the Bureau of Animal Industry of the U.S. Department of Agriculture, in Washington. In 1894 these men, together with Kilbourne, de Schweinitz, and Schroeder, published Bulletin 7, a masterpiece of epidemiological, bacteriological, and pathological description and analysis. The dissemination of the organism from the primary site in cattle was accurately traced, and statistical evidence was presented for a 1:1 correlation be-

tween sources of infected milk and resultant human infection. The Bulletin ended with concrete recommendations. In particular, Smith concluded that though meat and milk contaminated by the tubercle bacilli might be made safe for human consumption by heating under carefully controlled circumstances, in practice the required temperature of 167°F. was not always reached in rural "pasteurization" procedures, or at the center of a rare roast of beef. Bulletin 7 also introduced Theobald Smith's most significant experimental work in this field, which showed that bovine and human type tubercle bacilli were not the same.

In the same year (1894) Drs. H.C. Ernst (first professor of bacteriology at Harvard Medical School) and Austin Peters (a Boston veterinarian), after extensive experimental studies, reported to the Massachusetts Legislature that : "(1) Milk from cows affected with tuberculosis in any part of the body may contain infection. (2) The virus (sic) is present whether there is disease of the udder or not. (3) There is no ground for the assertion that there must be a lesion of the udder before milk can contain the infection of tuberculosis. (4) On the contrary, the bacilli of tuberculosis are present

the Harvard University School of Veterinary Medicine, persuaded the Legislature to pass a bill requiring rigid inspection of herds at frequent intervals, meat inspection, quarantines, and destruction of infected animals. In addition, as the foundation of a state-wide tuberculin-testing program, to be put into effect by 1896, a pilot project was started in 1894 with all cattle imported from outside the state, which were quarantined at Brighton, Somerville, and Watertown. The goal was accreditation of one tuberculosis-free herd after another, with strict interherd quarantine procedures, until the state should be free of bovine tuberculosis. The passage of this advanced legislation may have helped to attract Theobald Smith to Massachusetts, in 1895, to fill a joint appointment at Harvard Medical School and as Director of the Pathological Laboratories of the Massachusetts Board of Health.

Unfortunately, the 1894 program was bitterly opposed by vested interests, who were able to stir up an uninformed public. The accuracy of the tuberculin test, upon which the condemnation of apparently healthy animals rested, was challenged. The scheduled expansion of the program was delayed, and in 1897 a special commission of experts was appointed to define the reliability of the test. H. C. Ernst and Theobald Smith of Boston, and George Kinnell, a veterinarian from Pittsfield, reported the test to be phenomenally accurate and valuable. However, a minority report was filed by the two other veterinarians on the commission, Charles R. Wood of Lowell and Frank S. Billings of Grafton, who chose to depart from the stated purpose of the investigation and to offer their opinions on the usefulness of the program. They felt that "wanton destruction" of meat "slightly infected" was "little less than farcical." Such meat had been eaten for years "without a great amount of damage being done in regard to the health of the people." This opinion, it should be remembered, came at a time when in some age groups tuberculosis was

the commonest cause of morbidity and death, and when 60% of deaths from tuberculosis in children were caused by the bovine organism. Encouraged by this minority report, the Legislature postponed, and eventually abandoned, the earlier plan to extend tuberculin testing to all cattle in the Commonwealth.

Theobald Smith continued to study the two major types of tubercle bacilli, with results that opposed two misconceptions: the dangerous and widespread public belief that bovine tuberculosis could not be transmitted to man, and Koch's insistence, on the other hand, that there was no difference between the bovine organism and that transmitted from man to man. By 1901 Smith's extensive data convinced Koch. Meanwhile, others took up the struggle, and increasing public education on the relevant scientific facts eventually made possible, in 1917, the passage of a Federal law that proposed essentially the same program as its much earlier predecessor in Massachusetts. As a result, bovine tuberculosis is now a forgotten disease in this country.

Today we face problems in which public health is similarly pitted against economic interests — for example, cigarettes, air pollution, and noise pollution. For a variety of reasons, the lag in achieving effective legislation should now be much shorter — though the problems, from their very nature, will rarely lend themselves to so dramatic and permanent a solution. If the prospects of a victory for the public sometimes seem discouraging, we may do well to reflect on the fact that young people today, on reading Victor Hugo, have to ask "What is a hunchback?"

Dr. Davis is Adele Lehman Professor of Bacterial Physiology and director of the bacterial physiology unit at HMS. Mrs. Olmsted did graduate work at Harvard in biology and is interested in medical history.

BERNARD D. DAVIS, M.D.

MARGARET R. OLMSTED

and active in a very large proportion of cases in milk of cows affected with tuberculosis but with no discoverable lesion of the udder."

The public, dairy men, and veterinarians reacted initially, for the most part, with disbelief or hopelessness. But the vision of the ultimate eradication of bovine tuberculosis, with the remarkably specific tuberculin test as a guide, was vigorously supported by a few imaginative and persistent investigators. Salmon wrote, "I know from experience that many herds of cows are entirely free from the disease. This may be proved by the history of the herds, and by the tuberculin test. . . . I believe it is quite possible to breed a race of cattle practically free from the disease; and while this is being done the known infected herds should be destroyed. A great work like this cannot be accomplished by an individual, nor by a single board of health. There must be cooperation, unity of effort, and the combined influence and power of the Nation, the State, and local authorities, the dairy men, and all organizations that are interested."

The force of such statements, the report of Drs. Ernst and Peters, and a favorable report of the Massachusetts Cattle Commission, under Drs. F. H. Osgood and C. P. Lyman of

MOLIÈRE, Louis XIV, AND THEIR DOCTORS

FREDRIC JARRETT '67

WHEN Louis XIV asked him what service his physician performed, Molière replied, "Sire, we speak together, he orders treatments and I recover by ignoring them completely." "Medicine is one of mankind's worst errors," he wrote, "a physician is a man who is paid to recite idle tales in a patient's room until Nature has cured him or his remedies have killed him" — an attitude which probably dates at least from 1665 when two of his friends died after being treated with tartar emetic. Most of Molière's satirization of the medical profession is contained in his "medical" plays: *Le médecin volant*, *l'Amour médecin*, *Le médecin malgré lui*, *Monsieur de Pourceaugnac*, and *Le malade imaginaire*. In these we find a parade of physicians who classify, divide, subdivide, quote Aristotle, repeat the same trivia in Latin, Greek, and Arabic and attempt to seduce amply endowed young ladies on stage — all to the delight of audiences from the 17th century to our time.

His plays were culled from a variety of sources, notably the *sotties* of the Middle Ages, and the farces of a former medical student named Guillot Gorju. The doctors in *L'Amour médecin* were prominent physicians of the time, identified by appropriate masks, and the bedside quarrel in this play probably alludes to an argument among four physicians over the cause of Cardinal Mazarin's death, at which three of Molière's doctor-characters respectively argued the cause as "spleen, liver, pleural effusion, or mesenteric abscess."

From Molière's comedies can be gleaned a wealth of information on the state of medicine in the 17th century. In *Le malade imaginaire*,

Argan, a hypochondriac, is persuaded to feign death and discovers that his wife has no real love for him while his daughter has much. Further persuaded to defy his doctors and listen to a new one — actually his servant in disguise — he is finally cajoled into taking part in a burlesque ceremony in which he is admitted to the medical profession. Molière's comic technic is to combine Dr. Diafoirus' authority and embarrassingly poor logic with a clever use of language and almost have the audience believe that black is white. With Diafoirus the younger on stage, he undertakes to prove that the boy is a desirable marriage partner although he learned the alphabet only at age nine, his presentation is one of quietness, dullness, and slowness and that as a child he was always "sweet, peaceful, and quiet"; he nevertheless feels sure that this "heaviness of imagination" is a sign of future good judgment. The scene is so skillfully executed that we are almost willing to accept the boy's slow-witted manner as camouflaging true intellectual talent.

The famous initiation ceremony in the last act was likely composed at the home of Mme. de la Sabière with Boileau and La Fontaine present and some of the factual details were obtained from Dr. Jean Armand de Mauvillan, Molière's friend and physician. At the point where the bonnet is bestowed, Molière's dean recited:

Ego cum isto boneto
Venerabili et docto
Dono tibi, et concedo
Virtutem et puiscanciam
Medicandi
Pergandi
Seigandi

Percandi
Taillandi
Coupandi
Et occideni
Impune per totam terram.

Yet Molière commits an important oversight: like many laymen of his time, he links medicine with surgery. "Seignandi, percandi, taillandi, and coupandi" were surgical acts and were expressly forbidden to physicians. The rivalry between medicine and surgery in Paris was centuries old. Organized surgery dated from 1226 and the existence and autonomy of surgeons had been recognized by King Philip the Fair in 1311. In spite of the ambiguity of the King's decree in regard to diplomas, tuition, and examinations, the surgeons proceeded to set up their own training system, and their aspirations to attain university status were paralleled by the barbers' attempts to gain entrance into the surgeons' ranks. As a result there were three types of legal medical practitioners in France at the beginning of the 15th century, and the Faculty of Medicine successfully played the "barber-surgeons" against the surgeons, forcing the barbers and surgeons to be officially united in 1665, and thus demeaning the surgeons' status. In fact, to be admitted to examinations, a candidate who had practiced surgery "or any other manual art" was required to take a solemn oath and sign a notarized document never to do so again.

This careful amalgam of French and Latin was designed to be perfectly comprehensible to the groundlings of Molière's audience — the educated Frenchman of the 17th century knew a Latin that was grammatically and linguistically pure. The greeting "salus, honos et argentum/atque bonum appetitum" was written with less of a tone of farce than we dare hope. Like all true-blooded Gauls, the Faculty enjoyed an elegant meal served with fine wine, and its official workings had a certain gastronomic overtone. It was said that they had named to office two deputies whose sole func-

tion was to taste wines before banquets. Huge feasts were held after examinations; when a chair in botany was established it provided the occasion for a "botanical banquet." Examination questions under hygiene were "Is it necessary to serve lettuce in the first course, apples in the second?" and "Is it good to eat nuts after fish, and cheese after wine?" In fact, as late as 1787 Corvisart argued, glass in hand, on "Is it necessary to drink wine while eating oysters?"

The Faculty of Medicine of the University of Paris, exempt from many public charges, taxes, and obligations because of its age, virtually controlled medicine. The Faculty was officially opposed to all that was new or outside Paris — quinine, imported from America; antimony, from Montpellier; and circulation, from England. Nevertheless its statutes contained many admirable precepts: never visit a patient without being requested to do so; young doctors must rise before their elders as a sign of respect; the confidence of the patient is inviolate. When Louis XI wanted a Rhazès manuscript copied, the Faculty lent it to him only after considerable deliberation, and upon his payment of a quantity of silver coin as *caution*; later the Faculty explained that it acted thus only out of poverty. When Nicolas V asked Cardinal d'Estouteville to reorganize the University of Paris in 1452 he found that the Faculty of Medicine had the least to correct.

The all-powerful dean, *Vindex disciplinae et custos legum*, carried the keys of the seal of the academy and of the Faculty around his neck. The dean had the right to coin money — *méraux* or *jetons de présence*, which were distributed to physicians for their attendance at public acts and carried the impression of the arms of the dean; Guy Patin had his own image inscribed in addition. Patin ruled the Faculty with an iron hand, and although he struggled laudably against slavish routine and against the polypharmacy of Arabic medicine, his unfortunate and ada-

mant refusal to accept Harvey's teachings on the circulation of the blood retarded French medicine immeasurably. No person was more intransigent in his war with innovation than he, declaring Harvey's work "paradoxical, useless, false, impossible, absurd, and harmful." Patin's correspondence reflects his belief in the efficacy of bleedings; when told of an ailing physician who preferred to die rather than be bled he commented, "The devil will bleed him in the other world as a knave and atheist deserves."

Almost his equal in stubbornness was Jean Riolan, who had maintained that if dissections no longer agreed with Galen it was because Nature had changed since his time, rather than because Galen's observations had been incorrect. Actually much of the Galenic anatomy was gleaned from animal dissection, hence the steadfast belief in five lobed livers, double bile ducts, and bicornuate uteri. So heated was the controversy on the circulation that the Faculty nearly succeeded in imposing a law making it a crime to teach anti-Aristotelian ideas. It is

said that this was prevented in part by Boileau's satirical poem *l'Arrêt burlesque*, written in judicial language: "The Court orders the chyle to go directly to the liver and to no longer pass the heart, and orders the liver to receive it."

In the clinical teaching of that era it was possible to obtain a baccalaureate without exposure to patients: eloquence and oratorical style were most revered, as were hyperbole and grandiloquence. Subsequent to the baccalaureate a young physician attached himself to an older mentor — witness Diafoirus father and son in *Le malade imaginaire*. The study of medicine was accessible only to the *haute bourgeoisie* and certain dispensations in regard to examinations were made for the sons of physicians because the Faculty was anxious to preserve a nepotistic tradition supposedly originating with the oath of Hippocrates. An examination candidate might be asked to discuss a question such as "Are heroes born of heroes?" or "Is a woman an imperfect work of Nature?" The candidates for the license were presented to members of Par-

Molière at the court of Louis XIV.



liament, ministers, and high officials in an impressive ceremony. The initiates fell on their knees and received the apostolic benediction — “I give to you the right to read, interpret, and practice medicine here and everywhere on earth.” The doctorate followed naturally after a certain period and did not require any additional examinations. During this ceremony the physician was given a square bonnet, a ritual borrowed from the ancient Romans signifying the freeing of the doctor from the servitude of the schools.

In its teachings, the University was strictly business and tolerated no deviation from its orthodoxy. Experimentation was superfluous — had not Aristotle already described the phenomenon? Dissection of all but executed criminals was officially hampered by Pope Boniface VIII’s bull in 1300 and fell further into disrepute as a menial undertaking consigned to barbers and surgeons. Consequently the physicians’ anatomy was no more than rudimentary and the shortage of cadavers was so acute that Rondelet, a professor at Montpellier, was said to have dissected the body of his own dead child before his classes. Dissections were performed in an amphitheater with a professor reading an ancient text and an assistant mis-handling the organs of a cadaver — all this a century after Vesalius’ *Fabrica* (1543) and the dissections of Leonardo.

It was common after public executions for a mob of surgeons and barbers, reinforced by sundry hoodlums and students, to descend on the scene of execution and steal the corpse to perform a dissection in the home of one of their leaders, while the representative of the Faculty was barred from the door. The mob would cut the corpse in pieces rather than let it fall into the hands of the Faculty.

Although refused any official recognition by the University, gradually the surgeons came to be the real men of learning, producing such practitioners as Félix, the king’s surgeon.



The Enema — 17th century engraving.

Small wonder that Molière took such joy in mocking physicians, or that his audience would be convulsed with laughter to see Monsieur Diafoirus equating the spleen and liver as responsible for the patient’s trouble in *Le malade imaginaire* “because of the contiguity they have by way of the short vein, the pylorus, and often by the choledochic meatus.” Witness also his description in *Monsieur de Pourceaugnac* of a patient’s illness caused by melancholy “which derives from the vice of some part of the lower belly and the inferior regions, but particularly from the spleen whose heat and inflammation carries to the brain of the patient much thick and foul smoke whose noxious and malignant vapors cause deprivation of the functions of the noble faculty. The true source of all disease is either a foul and feculant humor or a black and thick vapor which obscures, infects, and soils the animal spirits.”

Unfortunately, not all the comic aspects of 17th century medicine were in Molière’s plays. Charles Bouvard, premier physician to Louis XIII told how, in a single year, the king received 215 different medications, 212 enemas, and 47 bleedings. The same physician wrote a long poem describing the autopsy of the Duchess of Mercoeur, which fortu-

nately made little dent on French literary history. Probably never before or since has so much pathology been put into verse, or so many alexandrines devoted to so ill-chosen a topic.

One of our more valuable insights into 17th century French medicine is the *Journal de la Santé du Roi*, a day-to-day account of Louis XIV’s health written by his court physicians between 1652 and 1711. To understand the tone of the *Journal*, one must realize that a court physician enjoyed the prerogatives of a count, was the nominal head of all French medicine and pharmacy, and the only man of the middle class aside from the clergy to be accepted at court. Also, the authors knew that the king was fond of perusing the *Journal*. When Vallot writes of the king’s bout of scarlatina, he describes how Louis “had given the marks of a grandeur of soul in the extreme dangers of his illness by his contempt of death, by his firm resolve, and showed the same firmness in his convalescence, completely accepting what was proposed to him without becoming impatient of the restriction placed on his food and drink.” Yet we know from a more accurate source that the king was delirious during the first ten or twelve days of his illness.

It is a sorry sight to see this poor monarch drugged, bled, purged, and having the most pedestrian details of his physical ills spread before the court. We note that on July 6, 1705, "a red stool" was obtained after "thirteen prodigious stools" had resulted from purging. So when the king amused himself watching one of Molière's plays it was from the point of view of an emancipated schoolboy. Between 1647 and 1715 he received between 1500 and 2000 medications, several hundred enemas, countless bleedings, and many pounds of quinine. Louis suffered from a kingly share of ills: a severe attack of smallpox, rougeola, vertigo, anthrax, *ersipelas*, chronic toothaches, *fièvre pourprée* — probably typhoid, severe arthritis, urinary difficulties, frequent furuncles, multiple attacks of what are described as worms — probably *ascaris*, and of course, gout. Yet even in disease, Louis XIV made a significant contribution to progress, for he hastened the triumph of tartar emetic, quinine, and ipecacuanha — the latter discovered in Brazil in 1686 by a French physician.

Vallot, a graduate of the medical school of Montpellier, was the first of the king's physicians, and died in 1671, to be succeeded by his nephew Daquin, also a graduate of Montpellier. Contemporary writings had more to say of Daquin's talents as a courtier than as a physician. Unfortunately as the king advanced into middle age he began to demand higher quality medical attention and Daquin was unceremoniously fired when he asked for the Archbishopric of Tours for his son in 1683. His successor was Guy-Crescent Fagon, whom the Duc de Saint-Simon had referred to as "the most learned and skillful doctor of his time," then professor of botany at the Jardin des Plantes, which he had helped make one of the leading scientific institutions in Europe. He was an implacable foe of charlatans whom he chose to define as all physicians outside of the Faculty of Paris. Within four or five months after assuming office, he dissolved the "Chambre

Royal des Médecins Provinciaux" which had been organized by Vallot to protect provincial doctors from the despotism of the Faculty of Paris, and cut off drug supplies from its members. He also prohibited graduates of Montpellier from practicing in Paris without standing in examination before the Faculty. Fagon's reputation was so great that he was called to four royal deathbeds, those of Charles II of Spain, the exiled James II of England, his successor William, and of course, Louis XIV.

Mention should be made of the king's fistula. Evidently, it began to trouble Louis early in 1686 for he and his doctors were deluged with suggestions of painless cures, which were tried unsuccessfully on similarly afflicted commoners. Finally, Félix, the king's surgeon, backed by Daquin, Fagon, and a Parisian consulting surgeon, persuaded the king to accept surgery. Félix had never before operated on an anal fistula, and the prospect of commencing his experience with the royal posterior provided the impetus for a hasty scouring of the medical history on anal fistulas and the performance of the operation several times on the charity wards of Parisian hospitals — results not reported. He also perfected a silver bistouri (*la bistourie à la Royale*) modelled on one described by Galen. At seven in the morning on November 8, 1686, the operation was performed in the presence of the king's mistress, his confessor, Daquin, Fagon, the Parisian consultant, and four apothecaries whose function it was to restrain his Highness. The operation was a success, and Félix was awarded a fee equivalent to ninety thousand dollars, plus an estate in the park of Versailles of approximately the same value whose owner had recently taken up residence in the Bastille for financial indiscretions.

This was the only time surgery was performed on Louis XIV, and the basic functions of his surgeons had been to perform periodic phlebotomies. As a boy he had been bled frequently, but upon assuming the majority he was reluctant to see

the necessity for frequent bleedings. In 1663, he submitted to a phlebotomy that almost proved disastrous as surgeons of that time would frequently nick an artery rather than a vein. Vallot noted that "the blood came out with such a violence that we had trouble stopping it"; but ever mindful of royal perusal of the *Journal* he described the result as "miraculous." Yet one notes that during the next 23 years, the king was bled only once. When Fagon became the first physician a new hard line on bleedings became apparent, since, as a graduate of the Faculty of Medicine of Paris, he was committed to their efficacy, and thought the king should be bled once a year — the "*saignée de précaution*." Each spring a lively contest ensued between the king and doctor, with Louis eventually submitting, and beginning in 1703 the king never evaded his spring bleeding.

Louis XIV died in 1715, and Molière had died some 40 years earlier when he suffered an attack of hemoptysis during the fourth performance of *Le malade imaginaire*. In these intervening years the trappings of French medicine changed immeasurably. Helvetius helped popularize ipecac, had a flourishing Parisian practice, and of course was denounced by the Faculty as an "*empirique*." Talbot, an Englishman previously knighted by Charles II for curing his malaria, also enjoyed immediate success in Paris by introducing quinine and was condemned by the Faculty as a charlatan. When he cured the Dauphin of a febrile illness, cinchona in wine became a miracle drug known as the "English remedy." Surgery advanced, thanks to the impetus of the king's fistula, and the 18th century was to produce such practitioners as Peyronie, Mareschal, Astruc, and Petit, and to witness the founding of the Royal Academy of Surgery.

The author wishes to express his gratitude to Drs. Paul S. Russell and J. Gordon Scannell '40 for their advice in preparing this article.

THE COUNCIL COUNSELS

The business of the Medical Alumni Association continues to be conducted during the year by its director and associate director of alumni relations, its officers and its elected Council, which meets regularly, between the annual meetings, in the fall and spring. The fall meeting of the current academic year was held on November 15, 1969, with President Faulkner in the chair. The new members present were Chester M. Pierce '52, Curtis Prout '41, John A. Schilling '41, and John L. Lewis '57, filling the unexpired term of Charleton B. Chapman '41 who resigned because of his pressing decanal duties at expanding Dartmouth Medical School.

The desirability of drafting more recent graduates to serve on the committee to nominate councilors was discussed, with the result that Thomas B. Quigley '33, Howard Ulfelder '36, James H. Jackson '43A, John C. Nemiah '43B and Bradford Patterson '50 were appointed to keep the spirit fresh. "To you from falling hands we throw the torch, etc." No doubt these young men will succeed in restoring youth even to the Council itself.

Director of Alumni Relations Parsons reported an all-time high of \$259,683 received by the Alumni Fund for the year 1968-1969. This included a bequest of \$50,000 from Irving L. Cabot '20. The matter of letting students know whence their scholarships came was discussed and approved and especially emphasized by Bob Beart '71, a guest at the meeting. The policy of appealing to the alumni for scholarship aid in preference to having their contributions absorbed in general funds was reaffirmed.

After lunch Kim Masters '72 and Mike Millis '70 joined the gathering; the desirability of closer relations

between the alumni and students was stressed and the proposal that "preceptorships" whereby students might occasionally join practicing alumni in their diurnal rounds and nocturnal vigils was enthusiastically welcomed.

The spring meeting was held as planned on March 9, 1970, but not on Internship Day as has been the custom. This annual event had to be postponed, paradoxically, because the computerization of the Intern Matching Program was apparently not equal to the strain. Due to the temporary incapacitation of President Faulkner, Vice President Cannon was in the chair — a living example of the benefit of choosing able vice presidents.

The untimely death of Councilor John B. Hickam '40 was suitably and sadly noted. The Nominating Committee brought in the names of F. Sargent Cheever '36, currently president elect, for president; Maxwell Finland '26, for president elect and C. W. Walter '32 for treasurer.

William R. Pitts '33, of Charlotte, North Carolina, was nominated as representative to the Associated Harvard Alumni. The editor of the *Bulletin* reported that representatives from each undergraduate class have been appointed to the editorial board, as listed on the masthead, and have attacked their new duties in a frenzy of enthusiasm.

Conscious of the University's determination that each tub must stand on its own bottom, even if it rocks a little, the editor also reported that income from ethical advertising has been rising under the persuasive influence of our new advertising representative. Costs, so far, have risen even more steeply, the inflationary spiral being almost vertical. This is due in part to the addition of a sixth issue each year and to the use

of more color (largely red), both of which the Council approved.

Dr. Parsons reported 356 fewer contributors than a year ago, at this time and collections \$11,000 behind. According to advices from 41 medical schools, of more than 80 that were interrogated, Harvard is second in number of givers but sixth to eighth in the overall size of the gifts. The stock of the Puritans seems still to survive.

In respect to preceptorships, so enthusiastically endorsed in November, preference of Saturdays for the day and psychiatry for the subject has been expressed but so far there have been no takers. Regarding relations between the Alumni Association and the Development Office, the consensus was expressed that the Alumni should not accept a subservient role and it was unanimously voted that the "Council considers it wise to remain independent in order to maintain good alumni relations and support."

The masterly biography of David L. Edsal by Dr. Joseph C. Aub '14 and Mrs. Ruth K. Hapgood, still in manuscript, was discussed and the Council voted that the Association should join in its sponsorship.

At the dinner that evening Perry Culver, chairman of the Committee on Admission, emphasized that each student is accepted on the basis of his or her potential contributions to the profession, "regardless of class, financial status, social status, race or creed." Sixteen black students were enrolled in the past year and made good records, and two American Indians are in the current group for admission. A black student is quoted as saying that so far as agreement with the policies of the University is concerned "there is a lot more reaction coming from angry whites than angry blacks."

Dr. Nemiah, secretary of the faculty, finds that students today are more concerned than formerly with people, community and delivery of medical care; more vocal in expressing their opinions; more insistent on being included in plans for their own destinies.

REGARDING JAKE MAGRATH

The biographical notes on George Burgess Magrath, '98 by Edna Hills Humphrey, published elsewhere in this issue of the *Bulletin*, are reminiscent of a colorful physician. To those of us who are old enough to remember "Jake" Magrath and his old Ford coupe, the article brings back memories of one who may have been the greatest dramatist of our profession as well as a great solver of problems. Legal medicine was the great interest of his life. Harvard recognized this by establishing on his death The George Burgess Magrath Chair of Legal Medicine as well as the George Burgess Magrath Library of Legal Medicine, mentioned in the article by Mrs. Humphrey.

Like many students before and after 1908 this writer saw his first autopsy at the North Grove Street Morgue and was impressed vividly by the great skill shown by Dr. Magrath in the finding and demonstration of the cause of death.

Mrs. Humphrey's statement that "*The Boston Globe* called him 'One of The World's Most Famous Pathologists'" led me to visit the library of *The Boston Globe*. The file was most interesting and shows that contemporary news reporters appreciated his ability and his dramatic personality. Among other interesting stories is one showing his early devotion to duty and his physical ability. While a fourth-year man at Harvard Medical School he was working at the Long Island Hospital, probably doing an autopsy, when he missed the last boat back to the mainland. He was anxious not to miss an examination due the next morning, so he took off his clothes, tied them around his neck and swam the half mile from Long Island to Spectacle Island, walked across this island, swam another half mile to Thompson's Island, walked across it, and then swam three-quarters of a mile to the mainland (Columbia Point). From there he walked to his living quarters on Massachusetts

Avenue. The next morning he attended and passed the examination.

The newspaper file also shows how great was his contribution in establishing a firm basis for forensic medicine. At the time of his retirement the newspaper doubted "if there is a single adult in Boston who has not heard of him or better still seen him in action. When a witness he would sit for hours in the bar enclosure. His general attitude was that of a lion resting." He gave the appearance of napping but he was not; there was not a single word uttered by a witness that he did not hear. When testifying he never omitted the phrase, "In my opinion." He did not trust his eyes but "let the camera do the work." Early in his career he had taken up photography and became proficient in the art.

The musical training of his voice made his speech in the courtroom pleasing. Opposing attorneys, when asked if they had any questions, almost invariably replied, "No questions." — the case had been so lucidly presented by Dr. Magrath.

His first car was an open model but he later acquired a Model T Coupe which he must have driven at least twenty years. Both cars were equipped with a siren, a bell and trick lights that he could focus on any desired spot. The Ford was named by police reporters "Suffolk Sue" and there was a short poem written about the car and its habits.

One personal encounter may be of interest. About thirty years ago I was called to the office of a very important and at times irascible Bostonian, where his brother, aged 70+, had died suddenly. Neither I nor any other physician had seen professionally the unfortunate man within anyone's memory. While we waited for Dr. Magrath to come and decide what he would do, the undertaker and I talked about what a row the surviving brother would create if Dr. Magrath decided to have the body transferred to the North Grove Street Morgue. When Dr. Magrath

arrived I recounted all I knew and said that the last conversation I had had with Mr. X was when I reported six months ago that his new bride was in good health. "Married less than a year sufficient cause for death in a man aged 70"; so the case was closed by Dr. Magrath.

A review of the early twentieth century volumes of *The Journal of Medical Research* shows that many other pathologists both at Harvard and elsewhere believed that *Cytoryetes Variola* was the causative organism of smallpox as reported by Drs. Councilman, Magrath et al. Some of these investigators lived to discover etiological agents of other diseases and a few lived to learn of the demonstration by electron microscope of the virus that causes smallpox.

Friends used to meet Dr. Magrath outside State Prison after executions "to get three drinks into him quickly." He apparently was greatly affected by the executions he had to witness.

For many years he and his friend Robert Fulton Blake, known as "Pirate Blake," arose early and drove to New London for the Harvard-Yale Boat Race. They missed none till the last few years of Jake's life when he was suffering from glaucoma and great stiffness and weakness.

"When he took office," says a friend, "he didn't even have a pencil! Talk about an automobile — there was only a horse and buggy and his predecessor wanted to sell him that."

One afternoon Pirate Blake told him of the death of an old friend. He expressed his regrets then said, "That's the way to go when the time comes. I wonder who will be next." Within twenty-four hours he was dead.

The State of Michigan where he was born in 1870 of parents who had migrated from Maine, Roxbury Latin School where he graduated in 1890, and Harvard University where he took his bachelor's degree in 1894, and his doctorate in medicine in 1898, all have reason to be proud of George Burgess Magrath.

ALBERT A. HORNOR '11

ALONG THE PERIMETER

TWO PROMOTIONS FOR DR. FEDERMAN

Daniel D. Federman '53 has been promoted to associate professor of medicine at HMS and additionally elevated to associate dean of the Faculty of Medicine for continuing education.

Dr. Federman's research and clinical interests are focused on genetics and endocrinology and their interrelationships. With his associates at Massachusetts General Hospital, he first described a new hereditary disorder of connective tissue characterized by dwarfism, stiff joints and eye defects. He was the first to demonstrate translocation of the human Y chromosome.

He is the author of "Abnormal Sexual Development" which summarizes and interrelates information from the fields of genetics and endocrinology related to human sexual differentiation. The text, published in 1967, received national acclaim.

Dr. Federman's primary interest

is in the teaching of medicine, from first year students to practicing physicians. He is considered a superb teacher of the art and science of medicine by colleagues and students alike. In 1967 his students presented him with an award, "The Order of the Golden Thyroid" citing their grateful "appreciation for his outstanding teaching and gifts of witte, insyghte, rhetorique, and clarity of presentation unique in our Harvard Medical experience." He serves as chairman of the MGH's Committee on Teaching and Education.

Since 1966 Dr. Federman has headed the Medical School's program in continuing education. (See accompanying story.)

He is a diplomate of the American Board of Internal Medicine, a fellow of the American College of Physicians, and a member of the Endocrine Society and the American Society for Human Genetics.

Gladly TEACH—Gladly LEARN

Who is responsible for the continuing education of physicians? Certainly the physician himself, but even if he is a speed reader, who can take several days a week to wade through the literature, he cannot possibly hope to keep abreast of the new developments in medicine.

Professional medical societies have become aware of their responsibility, and are beginning to provide the long overdue impetus for participation in postgraduate educational programs. In some instances, diplomas signifying a minimum number of hours spent in such programs are being awarded to stimulate participation; in others, membership in medical societies may be contingent upon a member's educational activities.

But what about the University?

Is the continuing education of physicians a legitimate academic endeavor? Harvard Medical School believes it is and has restructured its program to meet society's demands for better delivery of better health care.

I. COURSES FOR GRADUATES

Since 1872, the Department of Continuing Education (formerly Courses for Graduates) has offered a postgraduate curriculum for physicians throughout the world. In 1969, 27 courses were given at the various HMS teaching hospitals to a total of 1200 students. An AMA survey team, which granted full accreditation to the program in 1968 stated: "... both content and quality of instruction was superb. These courses probably represent the epitome of

their type on a national basis . . ."

Nevertheless, limitations are present because of the inherent nature of the courses. It is impossible to plan a curriculum responsive to the health needs of any one geographical area; there is little opportunity for participants to obtain individual faculty consultation concerning the specific patient problems that are most frustrating in their practices; courses last from three days to four weeks and are not involved with the ongoing needs of students after completion; and finally, the impact of each course on the quality of medical practice of the physicians who have completed it is almost impossible to evaluate.

II. COMMUNITY HOSPITAL PROGRAMS

New approaches to continuing education at HMS are guided by the following principles:

1. Programs should be planned with and for a group of physicians in geographical proximity (as exemplified by a community hospital). The ultimate aim of each is to improve health care in that community.
2. The structure of each program should be based on the health needs of that community. These should be ascertained by careful questioning of physicians as well as non-physicians and by objective surveys of patient care.
3. Local physicians should participate actively in curriculum planning.
4. They should be encouraged to use their own patients as illustrative material for educational sessions.
5. Programs should be regular, rather than episodic.
6. They should be geographically based in the community whenever possible.
7. Evaluation of their impact on behavioral patterns of physicians is of fundamental importance. This can be achieved by record reviews, laboratory screening, etc. The active participation of the physicians in this process is to be encouraged at every opportunity.

Several programs designed to achieve the above goals are underway at Harvard. They are all community oriented and relate to local Massachusetts physicians.

The aim of these newly developed programs is to determine whether carefully designed educational programs at community hospitals, resulting from active planning between university and community personnel, can promote improved care by practicing physicians. The six hospitals involved in the program are:

Burbank Hospital, Fitchburg; Cable Memorial Hospital, Ipswich; Anna Jaques Hospital, Newburyport; Lowell General Hospital, Lowell; St. Luke's Hospital, New Bedford; Winchester Hospital, Winchester.

At each hospital, weekly educational meetings, offering practical material to the staff physicians, are planned by a coordinator from the hospital and a representative of the Department of Continuing Education. An overriding aim of the program is to have each speaker focus his session on patient care problems existing in the community and, whenever possible, discuss patients as a method of emphasizing clinically relevant material. Considerable audience involvement in the discussion of problems is encouraged. The Department of Continuing Education intends to promote follow-up consultation opportunities for the physicians whose patients have been discussed during the sessions.

III. EMERGENCY WARD CARE TRAINING

The Department of Continuing Education provides an opportunity for practicing physicians to learn emergency care skills within the setting of an emergency ward. Because of the urgent need for staffing of emergency wards at community hospitals, the course focuses on the techniques required in caring for patients in a busy emergency room, rather than on a stereotyped pattern of lectures.

Instructors include interns, residents and members of the Harvard

faculty at the Massachusetts General Hospital. The Lynn Hospital emergency ward today is staffed by five physicians who received some training at the MGH. At the present time, a representative of the Faculty visits this emergency ward once a month to participate in an audit of their activities.

To date, 19 physicians have received training in the MGH emergency ward; of these, 16 work full time in emergency wards.

IV. FELLOWSHIP TRAINING

The Department of Continuing Education has established a fellowship in which graduates of medical residency programs work half time in the Department and half time in clinical units of the teaching hospitals affiliated with HMS. The fellows gain experience in the design, conduct, and evaluation of continuing education programs in community hospitals and thus are pre-

Henry P. Godfrey '65 has been awarded a William O. Moseley Travelling Fellowship for 1970-71.

Presently a surgeon in the Division of Biologics at NIH, Dr. Godfrey will spend a year in the laboratory of Professor P. G. H. Gell at the University of Birmingham in the department of experimental pathology.

During medical school, he researched antibody formation with Mahlon B. Hoagland '46, formerly

pared to take these skills to the communities in which they ultimately practice.

The Department also offers elective courses to HMS students. It is hoped that such courses will help to recruit new graduates to the area of continuing education in community practice.

There is a recognized, pressing need for innovative approaches to provide new medical knowledge for busy practitioners. The Department of Continuing Education at Harvard Medical School is helping to meet this need by extending the new knowledge of medicine acquired in the university teaching hospital centers to the community; by training future medical practitioners to assume leadership in medical education in their communities and thus raise the standard of care given there; and by developing a model of continuing education which can be used at other university centers.

Moseley Fellow

of Harvard's department of bacteriology and immunology. Dr. Godfrey's long-range interests involve teaching, and conducting research on the host-parasite interactions at the immunologic level. He is a member of the American Association for the Advancement of Science and the American Society for Microbiology.

The Moseley Travelling Fellowship was made available by the bequest of Julia M. Moseley in 1912.

PASSANO AWARD RECIPIENT

For his pioneering investigations that permitted the direct study of protein synthesis, Paul C. Zamecnik '36 received the 1970 Passano Award. Dr. Zamecnik is Collis P. Huntington Professor of Oncologic Medicine at HMS and director of the J. Collins Warren Laboratories of the Huntington Memorial Hospital.

Dr. Zamecnik's research centers on the incorporation of amino acids into protein. His work has led to the identification of the role of the

ribosome, the amino acid activation reaction, and transfer ribonucleic acid, and is essential to the future solution of the fundamental abnormality of cancer.

One of the highest honors in American medicine, the \$7,500 Passano Award is given annually by the Foundation of the same name, a non-profit Maryland corporation whose sole purpose is to encourage medical science and research, especially that having a clinical application.



Black Lung

Dear Friend:

Black Lung is an irreversible, incurable disease that needlessly cripples thousands of Americans each year.

Callous disregard for safety standards by coal companies and the Mine Worker's Union (coupled, sad to say, with general neglect on the part of the medical profession) has allowed America's coal mines to remain among the most dangerous in the world. The lucky miner who avoids death or disabling injury from slate falls and explosions still faces a better than even chance of being struck down by respiratory disorders.

Last year, a few doctors joined together with coal miners to do something about this problem. Bucking both the company and the union, they managed to get a potentially strong black lung compensation law passed in West Virginia and spearheaded the fight that led to passage of a stronger federal mine safety act.

Last year's efforts were successful, but it has become apparent that the fight has just begun. Only one miner was compensated under the new West Virginia law in its first year of operation, and Mr. Nixon fired the federal mine safety chief who had backed the miners' efforts.

The West Virginia Black Lung

Association is perhaps foremost among the groups working to make the mines a decent place in which to work. Under its banner, miners and concerned physicians continue the good work begun last year. To insure that the reforms they seek are carried to fruition, they must reach a larger audience with their message. Money is needed now to support a broader publicity effort. Money is needed to insure representation of their views in the legislature; no one miner currently serves in that body, but several are running this year.

We feel that the Black Lung Association is preventive medicine in its most powerful form; physicians and lay people working together to build a safer, healthier community.

LEONA BAUMGARTNER, M.D.
Visiting Professor of Social Medicine

JOSEPH BRENNER, M.D.
Director, MIT Health Services

ROBERT COLES, M.D.
Lecturer on Education

ALVIN POUSSAINT, M.D.
Associate Dean for
Student Affairs HMS

MARK ROSENBERG '71



A Radical View of HMS AND RELATED MATTERS

BAYLEY F. MASON, ASSOCIATE DEAN FOR RESOURCES

Like the late Red Smith, I like to go where the cabbage is cooking and catch the scent. So on a rainy Thursday evening (April 9) I wandered over to 2 Divinity Avenue to join about 175 people for a "teach-in" on "Harvard as Employer and Landlord." This affair was sponsored by the Harvard-Radcliffe Tenants Support Union and the H-R New University Conference. Since the poster guaranteed the appearance of a speaker from the Roxbury Tenants of Harvard Association, I couldn't resist.

The last radical gathering I attended was in Memorial Church during Commencement Week, 1969. That had been a horror show. A parade of students and camp followers grabbed the floor mike and spent an hour shouting obscenities at the Committee of Fifteen. The Committee adjourned without an opportunity to speak. I was unimpressed. This year's show proved more satisfactory. It was a trade-union kind of thing. About 95 percent of the audience were committed radicals so no one interrupted the speakers for two hours. There was some traffic back and forth to the john and out to the lobby for a smoke. But otherwise politeness reigned. Only two speakers used a few four-letter words. None I had not heard before.

The lady moderator from the Graduate School of Arts and Sciences was marvelous. She had been a feature attraction last spring and was well prepared. For an opener she told the hushed gathering that Harvard was the largest employer and landlord in Cambridge, and suggested this had been hidden from view. Having read lots of Harvard press releases and various reports over the past 20 years which pointed this out, I assumed she might be playing a little politics. She had more fun with the Medical School. The audience was told that HMS engaged in tokenism. "It admitted only 15 black students last year."

The audience, accustomed to Harvard College freshman classes of 1250, gasped. Nobody interrupted to ask, "15 out of how many?" While the blacks grumbled and the Radcliffe girl behind me looked pained, the speaker castigated HMS for not admitting enough women.

This was good because it was a nice opener for the various Women's Liberation Front speakers who followed. One secretary from the Divinity School did not like her job, her boss, her phone, her typewriter, or the pay. My Radcliffe friend groaned when the speaker said that Harvard only paid new secretaries \$3900 a year. I made a note to check that out. Personnel must give me the wrong pay scale. Day care centers were big. Having been at a session only three hours earlier with Radcliffe administrators who discussed the new day care center programmed for Currier House, I was fascinated to be told that Harvard and Radcliffe opposed day care centers. Poor communications somewhere. This lady, however, wanted a 24-hour day care center. She had no cost data, but it sounded fine.

For me, the feature attraction was Professor Jonathan Beckwith. He got a nice introduction but gave no speech. He only announced a workshop. Former teacher Shapiro sat in the front row. He did not say anything. But a lecturer in one of the basic science departments did get up to give a diatribe on how evil Harvard is, a strong plea for the revolution and Marxism. I had read all about that as a freshman in Gov. I and did not like his once-over-lightly review. Marx deserves better. He did say that he had learned that his HMS lab operated more smoothly if you collaborated with the "workers," i.e. lab technicians. I had always assumed this to be true in any lab. The lecturer also said he discovered not one but two painters working outside his lab one day. That made me feel warm. I remembered my child-

hood. We had lots of painters, carpenters, machinists, teachers, doctors living in my neighborhood. I guess if you come from Darien, they don't.

A painter spoke. He was all in favor of the student-worker alliance. He said he had learned to like blacks and wished Harvard could stop playing off the ground people against the craftsmen. A black student spoke on the labor movement. He favored the Philadelphia plan. So do I. Another woman spoke. She was teaching in the Romance Languages Department. And she was very mad. It seems that when she wanted her fellowship increased because she was pregnant, the Department Chairman wanted to know why she wouldn't use a clinic instead of a private physician. No "worker" she. She also wanted more women professors in the Department. That seemed like a sensible idea.

A Cambridge tenant spoke. Maybe it was late, but I got confused. She reminded us how dreadful students were because they drove up the rent and really did not fit well in a family neighborhood. I have some MIT students on my street. They park four cars on the street and nearly ran over my youngest child last week. She and I had much in common. Then she said that she really did like the worker-student alliance, too. And she had it all worked out. The students would move in and run up the rents and then move out. This would irritate the landlords, who would then have to rent the newly refurbished apartments to the families. The students in the audience shuffled their feet, but she left the podium with a cheer for the alliance, so they applauded. Oh, about the podium. One lady said it was a symbol of male chauvinism. It was too high.

Then came Mr. Robert Parks of the Roxbury Tenants of Harvard Association. He gave the Reader's Digest condensed version of the HMS struggle to oppress the poor whites of Roxbury. It was beautiful. Lots of laughs when he said, "That new community hospital will serve (pause) the communities of Welles-

ley and Newton.”

Mr. Parks had an uneasy moment when he said that after Harvard had paid the landowners “fabulous prices” for the houses and thus became a landlord, it was a bad landlord. Harvard not only let the roofs leak, “it let in undesirables.” Some blacks looked displeased. Mr. Parks reassured everyone it was now a nice, happily integrated neighborhood. I

guess the “undesirables” had been hippies or something. Dean Ebert was lauded for showing up for a tour of the premises, and Mr. Parks concluded that things were now moving along very well. He also had copies with him of the proposal for new housing that the Tenants would build since, “Harvard only plans to take care of its own with 1100 houses and its rents will be \$180 a month.” Mr.

Parks was so pleased in general that he said it all goes to prove what demonstrations will do for you. This thought appealed to those who like demonstrations, but somehow Mr. Parks left the audience with such a feeling of progress that I was concerned. If Mr. Parks and his tenants are happy, what is there left to demonstrate against at HMS? Next time I see Dr. Shapiro, I’ll ask him.

LETTERS

A Child’s GARDEN of MURDER

To the Editor:

Popular reaction to contemporary violence has raised many puzzling questions of definition around the death of human beings. I feel these questions can be clarified somewhat by the following primer on murder and its connotative terminology.

Basic Terms

When a human intentionally kills another human the event is called **murder**. There are two kinds of murder: the more socially-acceptable justifiable homicide, or **fairmurder**; and the socially distasteful murder, “murder most foul,” or **foulmurder**.

Some Examples

Warmurder is generally considered fairmurder from the viewpoint of the individual side vis-a-vis a member of the opposition. **Assassinationmurder** — with its connotations of stealth, deliberation, and plotting — is usually considered foulmurder. **Slaughtermurder** (murder of numbers of humans in a time-limited interval) can partake of both aspects of murder. For example, the attempted genocide by Nazis in World War II is considered foulmurder; Samson’s massacre of the Philistines is viewed as fairmurder (borrowing some of the benevolent aspect of warmurder); and the Hiroshima-Nagasaki slaughtermurder was seen as fairmurder (again under warmurder) by many at the time, but

has since acquired a foulmurderous cast.

Contemporary Applications

The Vietnam war, the so-called “Green Beret Murder Case” and the “My Lai” incident are some of today’s complex issues best understood (in terms of popular reaction) by applying our connotative terminology.

The war itself involves fairmurder by definition when viewed as warmurder, i.e., in the gross. Opposition to its fairmurderous aspect can be made to seem irrelevant in this way. Opponents of the war prefer to point to specific horrors of war — a napalm-maimed child, for example — to produce in the spectator the reactions appropriate to foulmurder. This reaction occurs only because the focus has shifted from gross to fine, where warmurder (fairmurder) is viewed through a narrow aperture and made to resemble assassinationmurder (foulmurder).

The “Green Beret” case makes the same point more strongly. Murder students may have been surprised at the outcry against the Green Berets and the insistence that the event was not according to Hoyle, not Queensbury Rules — in short, not good warmurder. Such students were apparently reasoning that since the assassinationmurder occurred under the auspices of warmurder it should have had the appropriate fairmurder flavor. In fact, such

stress was laid on the pure assassinationmurder features of the event (by a nation admittedly sensitized to assassinationmurder) that it had a foulmurder impact transcending its fairmurder (warmurder) context. In common argot, a simple killing in wartime was considered a true murder.

The so-called “My Lai” massacre was a knotty puzzle for murder students. Why — they would ask — was this particular example of slaughtermurder (under warmurder, and thus fairmurder, auspices) reacted to as foulmurder, especially when slaughtermurderous equivalents had been occurring for years as acceptable warmurders? The answer to this enigma lies in a subtle insight: such stress was laid on the elements of deliberateness involved that the slaughtermurder was **unconsciously** tied to assassinationmurder in its foulmurderous aspect! Thus, this particular slaughtermurder was popularly perceived as compound assassinationmurder — as if each dead individual had been individually killed.

I hope this primer has clarified some of the puzzling features of popular reaction to contemporary acts of violence; I further trust it will silence those fuzzy-thinking simplists who continue to contend — despite convincing evidence — that murder is murder.

THOMAS G. GUTHEIL '67

PRO AND CON

To the Editor:

I am a 1964 graduate of HMS. Upon reading Mr. Greenblatt's letter (HMAB, Jan.-Feb., 1970) indicating he "fully support(s) the policy of the Nixon administration in Vietnam." I felt compelled to indicate my personal opposition to this policy (whatever it is, other than a continuation of Johnson's discredited maneuverings).

"Vietnamization" is the label attached to the plan to give Asians, hired by the Nixon government, arms to kill the other Asians in a senseless war. Our government never should have sent troops there, we should not be there at all at present, and we should all demand that the troops be brought home — *now*. Some of us called for this half a decade ago, last fall, and this spring again, and we shall continue to do so until the killing stops.

THEODORE S. TAPPER '64

To the Editor:

For the first time in some years, I cannot in good conscience make a contribution to the Alumni Fund. The degradation of the standards that formerly made that school peerless is a source of such deep disappointment that I can no longer remain silent. You speak with apparent pride of the efforts of the Dean and faculty to meet the needs of the educationally deprived minority. We read of the repeated incarceration

of the deans of the College in their offices by this same deprived minority and the utter failure of the University to control this. We read in the Alumni magazine, and we see in *Time* magazine, pictures of Dr. Ebert and other faculty members standing on the street corner handing out leaflets about the "moratorium" on the Vietnam war.

If Dr. Ebert, as a private individual, chooses to do this, or anything else related to any issue of public concern, he has a perfect right to do so. But when he accepts the deanship, he accepts with it certain restraints on his conduct. Every word he utters from that position attracts attention by virtue of that position and not from any intrinsic merit he or his words might have if he were not the Dean. It is simply that his street corner activities are inappropriate for a dean. Dr. Ebert and the University apparently believe that they can improve the lot of the minority by downgrading the University, and they will proceed along that line until they are stopped by a general recognition that they have failed, or by the loss of the financial support that makes their actions possible. A medical school is basically designed to create doctors, not politicians. The object of the entire endeavor is to get the sick man well. That cannot be accomplished on a street corner or by trying to teach Shakespeare to a man who cannot read.

WILLIAM F. POLLOCK '43B

ANOTHER MGH BENEDICT

To the Editor:

In your obituary of "Little Bill Smith," you noted that he was the first married house officer to be appointed at M.G.H. I think this is true but there is a bit of history that precedes this that the *Bulletin's* readers may enjoy.

Clarence Ordway, who graduated from M.G.H. in 1906, who lived and

afterwards practiced in Winchester, was, I believe, married when he was appointed to West Surgical, but he kept this a secret from the authorities, although it was known by his fellow H.O.'s.

I was appointed to South Surgical in 1905. At that time I was engaged to Marie Conant and we had planned to wait until I had finished my house

officership before being married. However, circumstances in her family led us to decide to marry while I was still an H.O. Without any thought that I was doing anything improper, I asked for a leave of two weeks. To my surprise this innocent request shook the hospital to its foundations and Dr. Howard took a very serious view of my request. He wanted to know why; had we been indiscreet; did we have to get married, etc., etc. I convinced him that we were innocent of any wrong doings but still he hesitated. Finally, and reluctantly, I was given one week, with strong admonitions that I must live in the hospital just like other H.O.'s which I had intended to do anyway; that I was not to ask for any extra time off, or any favors. So we were married.

Perhaps they were more right than I was, for in order to be with my wife when I was off duty, I did have to commute to Stoughton where Marie lived with my parents, and this did not give much time to rest and relax. This may have contributed to the illness that forced me to resign before I had finished my house officership. However, all's well that ends well. Marie and I had 58 years together. Later I returned to M.G.H. in another field and you know the results of this return.

Now it is unusual for H.O.'s not to be married.

NATHANIEL W. FAXON '05

Ouch!

To the Editor:

This is merely to call your attention to a typographical error appearing in the Alumni Notes of the January to February, 1970 issue under my name, Class of 1931.

It is stated that I am President of the Society of Peloric Surgeons, and surely this must be a most interesting society! My dictionary defines "pelor" as a fetal monstrosity with some parts abnormally large. Surely this society must have more intriguing meetings than my own, which is the Society of Pelvic Surgeons!

SOMERS H. STURGIS '31



Internship List

In general, all internships and residencies start July 1, 1970 for one year.

<i>Name</i>	<i>Hospital (and location)</i>	<i>Service</i>
Ain, Jonathan D.	Boston City Hospital (Harvard Service)	Surgery
Akins, Cary W.	Massachusetts General Hospital	Surgery
Albeck, Joseph H.	Bellevue Hospital Center-New York University	Rotating
Anane-Sefah, John C.	Colorado Medical Center, Denver	Surgery
Anderson, Frank H.	Duke University Medical Center	Medicine
Anderson, T. McDowell, Jr.	University of Chicago Hospitals and Clinics	Rotating
Angoff, Gerald H.	Cleveland Metropolitan General Hospital	Medicine
Applegate, Clarence W.	Duke University Medical Center	Medicine
Arons, Elissa L. B.	Children's Hospital Medical Center, Boston	Pediatrics
Ault, Kenneth A.	Peter Bent Brigham Hospital	Medicine
Barkin, Roger M.	Colorado Medical Center	Pediatrics
Beattie, Brian A.	University of Utah Affiliated Hospitals, Salt Lake City	Rotating
Belkin, Stuart C.	Boston City Hospital (Harvard Service)	Surgery
Bennett, Michael I.	Presbyterian-St. Luke's Hospital, Chicago	Medicine
Bennion, Lynn J.	Massachusetts General Hospital	Medicine
Benson, James W., Jr.	Peter Bent Brigham Hospital	Medicine
Berv, Kenneth R.	Philadelphia General Hospital (University of Pennsylvania Division)	Rotating
Boetcher, David A.	Presbyterian-St. Luke's Hospital	Medicine
Bours, William A., IV	University Hospital of San Diego County	Surgery
Brandt, John H.	McLean Hospital, Belmont	Psychiatry
Breed, R. Huntington, 2d	Presbyterian Hospital, New York	Residency
Breuer, Anthony C.	Peter Bent Brigham Hospital	Surgery
Briggs, Josephine E. P.	Mount Sinai Hospital, New York	Medicine
Brondfield, Eric S.	San Francisco General Hospital	Medicine
Brooks, Benjamin R.	Boston City Hospital (Harvard Service)	Medicine
Browne, Kay F. S.	Children's Hospital Medical Center	Pediatrics
Bruner, Kenneth W., Jr.	Mayo Graduate School of Medicine	Pathology
Bulkley, Bernadine H.	Johns Hopkins Hospital	Medicine
Bulkley, Gregory B.	Johns Hopkins Hospital	Surgery
Burns, William H.	Stanford University Affiliated Hospitals	Medicine
Camfield, Peter R.	Royal Victoria Hospital, Montreal	Medicine
Cannon, Woodward	Massachusetts General Hospital	Surgery
Carey, Edmund L., Jr.	University of Pennsylvania Affiliated Hospitals	Medicine
Clarke, Thomas E.	University of California Hospitals, San Francisco	Surgery
Cohen, Philip	Massachusetts General Hospital	Medicine
Coppeto, James R.	Bellevue Hospital Center-New York University	Surgery
Cox, Malcolm C. L.	University of Pennsylvania Affiliated Hospitals	Medicine
Crockett, D. Shan	Cedars-Sinai Medical Center, Los Angeles	Rotating
Dalton, Timothy V.	University of Minnesota Hospitals, Minneapolis	Surgery

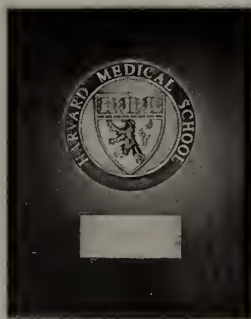
Davidoff, Ira G.	Kaiser Foundation Hospital, Oakland	Rotating
Davies, John A. K.	San Francisco General Hospital	Rotating
Davis, Charles A.	Yale-New Haven Medical Center	Pediatrics
Dellinger, E. Patchen	Beth Israel Hospital, Boston	Surgery
Di Giacinto, George V.	Roosevelt Hospital, New York	Surgery
Dietz, Patrick A.	San Francisco General Hospital	Rotating
Dixon, Jonathan A.	University of California Hospitals	Medicine
Dodes, Lance M.	University of Pennsylvania Affiliated Hospitals	Rotating
Duhme, David W.	Boston City Hospital (Harvard Service)	Medicine
Emans, John B., 3d	Peter Bent Brigham Hospital	Surgery
Emans, S. Jean H.	Children's Hospital Medical Center	Pediatrics
Ericsson, Charles D.	University of Minnesota Hospitals	Medicine
Fareed, George C.	Peter Bent Brigham Hospital	Medicine
Ferber, Richard A.	Children's Hospital Medical Center	Pediatrics
Fisher, Richard I.	Massachusetts General Hospital	Medicine
Fogelson, Frederick S.	Medical College of Virginia-Hospital Division, Richmond	Surgery
Folland, Edward D.	Peter Bent Brigham Hospital	Medicine
Fredlund, Paul N.	Peter Bent Brigham Hospital	Medicine
Fritz, Robert T.	Strong Memorial Hospital, Rochester, New York	Surgery
Gerson, Donald E.	Mount Sinai Hospital	Medicine
Gharib, Moshen	Children's Hospital Medical Center	Pediatrics
Gimbrone, Michael A., Jr.	Massachusetts General Hospital	Surgery
Goldberg, Ronald F.	Temple University Affiliated Hospitals, Philadelphia	Medicine
Goldman, Mitchell H.	Peter Bent Brigham Hospital	Surgery
Goldsmith, George H.	University Hospitals of Cleveland	Medicine
Good, Michael I.	Clinical Medicine in Europe	
Goodman, William S.	Beth Israel Hospital	Surgery
Gottesman, Michael M.	Peter Bent Brigham Hospital	Medicine
Green, Mark R.	Beth Israel Hospital	Medicine
Greenblatt, David J.	Montefiore Hospital and Medical Center, New York	Medicine
Groat, Robert L.	Duke University Medical Center	Medicine
Gross, Peter L.	University of California Hospitals	Medicine
Gunderson, Paul E.	Los Angeles County-U.S.C. Medical Center	Surgery
Gustavson, Edward E.	University of Minnesota Hospitals	Pediatrics
Hafner, Daniel J.	Presbyterian-University Hospital, Pittsburgh	Medicine
Helpern, Joan M.	Mount Auburn Hospital, Cambridge	Rotating
Herzog, James M.	Massachusetts Mental Health Center	Psychiatry
		Residency
Hopkins, Timothy B.	Peter Bent Brigham Hospital	Surgery
Howell, Stephen B.	Massachusetts General Hospital	Medicine
Hubbard, Francis E.	Boston City Hospital (Harvard Service)	Medicine
Hyman, Frederic E.	Yale-New Haven Medical Center	Surgery
Irwin, Charles F., 3d	Los Angeles County Harbor General Hospital, Torrance	Rotating
Jamison, W. Glenn	Boston City Hospital (Harvard Service)	Medicine
Kahan, Eileen B.	Massachusetts General Hospital	Pediatrics
Keane, William M.	Strong Memorial Hospital	Surgery
Khoury, George, Jr.	Massachusetts General Hospital	Medicine
Kligfield, Paul D.	Beth Israel Hospital	Medicine
Kopf, Gary S.	Roosevelt Hospital	Surgery
Kulczycki, Anthony, Jr.	Buffalo General-E. J. Meyer Memorial Hospital	Medicine
Landres, Richard T.	University Hospital of San Diego County	Medicine
Lanken, Paul N.	Los Angeles County Harbor General Hospital	Medicine
Lawrence, J. Mark	University of Chicago Hospitals and Clinics	Surgery
Levine, Robert A.	Boston City Hospital (Harvard Service)	Medicine
Lieber, Michael M.	Massachusetts General Hospital	Surgery
Lipkin, Mack, Jr.	North Carolina Memorial Hospital, Chapel Hill	Medicine
Lockhart, Jack M.	University Hospitals of Cleveland	Medicine
Lokey, Hamilton, Jr.	Colorado Medical Center	Surgery

Lozner, Eugene C.	Peter Bent Brigham Hospital	Medicine
Mackenzie, Thomas B.	University of California Hospitals	Medicine
McLaughlin, Michael H.	University Hospital of San Diego County	Surgery
Meyers, Joel D.	University of Pennsylvania Affiliated Hospitals	Medicine
Millis, Michael B.	University Hospitals of Cleveland	Surgery
Morse, Herbert C., 3d	Peter Bent Brigham Hospital	Medicine
Munford, Robert S.	Parkland Memorial Hospital, Dallas	Medicine
Noble, R. Michael C.	Mount Sinai Hospital	Medicine
Noseworthy, John, Jr.	University Hospitals of Cleveland	Surgery
Oster, Charles N.	Cleveland Metropolitan General Hospital	Medicine
Ottesen, Eric A.	Duke University Medical Center	Pediatrics
Pearlman, Alan S.	Peter Bent Brigham Hospital	Medicine
Peppercorn, Margaret T. B.	Children's Hospital of the District of Columbia	Pediatrics
Pierce, R. Wendell	University of California Hospitals	Surgery
Pock, Randolph W.	Bronx Municipal Hospital Center, New York	Medicine
Polonsky, Derek C.	Mount Sinai Hospital	Medicine
Prior, Roderick E.	University of Pennsylvania Affiliated Hospitals	Medicine
Raaf, John H.	Massachusetts General Hospital	Surgery
Rabb, James M.	University of Chicago Hospitals and Clinics	Medicine
Raskin, Stephen P.	Johns Hopkins Hospital	Surgery
Reed, John B.	Duke University Medical Center	Medicine
Reinisch, John F.	University Hospital, Ann Arbor	Surgery
Ribner, Bruce S.	Mount Sinai Hospital	Medicine
Richardson, John M.	Presbyterian-St. Luke's Hospital	Medicine
Robinson, Richard A.	Boston City Hospital (Harvard Service)	Medicine
Romm, Frederic J.	North Carolina Memorial Hospital	Medicine
Rosenfeld, Alvin A.	Rhode Island Hospital, Providence	Medicine
Rosenthal, Susan N.	Beth Israel Hospital	Medicine
Ross, Michael E.	San Francisco General Hospital	Medicine
Rymzo, Walter T., Jr.	Boston City Hospital (Harvard Service)	Medicine
Sandberg, Glenn W., Jr.	Peter Bent Brigham Hospital	Surgery
Saunders, Andrew P.	Massachusetts General Hospital	Surgery
Schwartz, Ronald H.	Rutgers University, New Brunswick, N. J.	Ph.D. Program
Shelton, James H.	University Hospital of San Diego County	Medicine
Simmons, Jeffrey L.	University of Pennsylvania Affiliated Hospitals	Medicine
Simson, Michael B.	University of Pennsylvania Affiliated Hospitals	Medicine
Smith, Howard G.	Peter Bent Brigham Hospital	Surgery
Soll, Andrew H.	Los Angeles County Harbor General Hospital	Rotating
Solomons, Noel W.	University of Pennsylvania Affiliated Hospitals	Medicine
Stein, Richard S.	University of Chicago Hospitals and Clinics	Medicine
Stevens, Rose Marie	Massachusetts General Hospital	Medicine
Taylor, John W.	University of Washington Affiliated Hospitals, Seattle	Rotating
Tenney, James H.	Boston City Hospital (Harvard Service)	Medicine
Thurer, Robert L.	Massachusetts General Hospital	Surgery
Trafton, Peter G.	University of California Hospitals	Surgery
Tucker, Robert W.	Duke University Medical Center	Medicine
Villa, Luis	University of Miami Affiliated Hospitals	Medicine
Wade, Philip H.	Strong Memorial Hospital	Medicine
Walkley, Edward I.	Children's Hospital Medical Center	Pediatrics
Walsh, John V., Jr.	Department of Physiology, Harvard Medical School	Post-Doctoral Fellow
Warren, John W.	University Hospitals of Cleveland	Medicine
Weens, Joan H.	Mount Sinai Hospital	Medicine
Weiler, Mary M.	Stanford University Affiliated Hospitals	Medicine
Weissman, Jack B.	Presbyterian Hospital	Medicine
Williams, Sankey V.	University of Pennsylvania Affiliated Hospitals	Medicine
Wyler, David J.	University of California Hospitals	Medicine
Yee, Robert D.	Strong Memorial Hospital	Medicine



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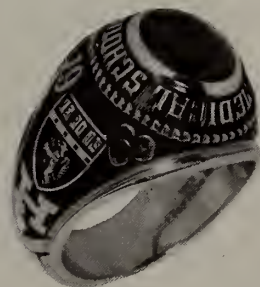
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